Optimal Routing Design (paperback) (Networking Technology)

By Russ White, Alvaro Retana, Don Slice

Download now

Read Online ➡

Optimal Routing Design (paperback) (Networking Technology) By Russ White, Alvaro Retana, Don Slice

Techniques for optimizing large-scale IP routing operation and managing network growth

- Understand the goals of scalable network design, including tradeoffs between network scaling, convergence speed, and resiliency
- Learn basic techniques applicable to any network design, including hierarchy, addressing, summarization, and information hiding
- Examine the deployment and operation of EIGRP, OSPF, and IS-IS protocols on large-scale networks
- Understand when and how to use a BGP core in a large-scale network and how to use BGP to connect to external networks
- Apply high availability and fast convergence to achieve 99.999 percent, or "five 9s" network uptime
- Secure routing systems with the latest routing protocol security best practices
- Understand the various techniques used for carrying routing information through a VPN

Optimal Routing Design provides the tools and techniques, learned through years of experience with network design and deployment, to build a large-scale or scalable IP-routed network. The book takes an easy-to-read approach that is accessible to novice network designers while presenting invaluable, hard-to-find insight that appeals to more advanced-level professionals as well.

Written by experts in the design and deployment of routing protocols, *Optimal Routing Design* leverages the authors' extensive experience with thousands of customer cases and network designs. Boiling down years of experience into best practices for building scalable networks, this book presents valuable information on the most common problems network operators face when seeking to turn best effort IP networks into networks that can support Public Switched Telephone Network (PSTN)-type availability and reliability.

Beginning with an overview of design fundamentals, the authors discuss the tradeoffs between various competing points of network design, the concepts of

hierarchical network design, redistribution, and addressing and summarization. This first part provides specific techniques, usable in all routing protocols, to work around real-world problems. The next part of the book details specific information on deploying each interior gateway protocol (IGP)—including EIGRP, OSPF, and IS-IS—in real-world network environments. Part III covers advanced topics in network design, including border gateway protocol (BGP), high-availability, routing protocol security, and virtual private networks (VPN). Appendixes cover the fundamentals of each routing protocol discussed in the book; include a checklist of questions and design goals that provides network engineers with a useful tool when evaluating a network design; and compare routing protocols strengths and weaknesses to help you decide when to choose one protocol over another or when to switch between protocols.

"The complexity associated with overlaying voice and video onto an IP network involves thinking through latency, jitter, availability, and recovery issues. This text offers keen insights into the fundamentals of network architecture for these converged environments."
—John Cavanaugh, Distinguished Services Engineer, Cisco Systems®

This book is part of the Networking Technology Series from Cisco Press, which offers networking professionals valuable information for constructing efficient networks, understanding new technologies, and building successful careers.

 Download Optimal Routing Design (paperback) (Networking Tec ...pdf

 Read Online Optimal Routing Design (paperback) (Networking T ...pdf

Optimal Routing Design (paperback) (Networking Technology)

By Russ White, Alvaro Retana, Don Slice

Optimal Routing Design (paperback) (Networking Technology) By Russ White, Alvaro Retana, Don Slice

Techniques for optimizing large-scale IP routing operation and managing network growth

- Understand the goals of scalable network design, including tradeoffs between network scaling, convergence speed, and resiliency
- Learn basic techniques applicable to any network design, including hierarchy, addressing, summarization, and information hiding
- Examine the deployment and operation of EIGRP, OSPF, and IS-IS protocols on large-scale networks
- Understand when and how to use a BGP core in a large-scale network and how to use BGP to connect to external networks
- Apply high availability and fast convergence to achieve 99.999 percent, or "five 9s" network uptime
- Secure routing systems with the latest routing protocol security best practices
- Understand the various techniques used for carrying routing information through a VPN

Optimal Routing Design provides the tools and techniques, learned through years of experience with network design and deployment, to build a large-scale or scalable IP-routed network. The book takes an easy-to-read approach that is accessible to novice network designers while presenting invaluable, hard-to-find insight that appeals to more advanced-level professionals as well.

Written by experts in the design and deployment of routing protocols, *Optimal Routing Design* leverages the authors' extensive experience with thousands of customer cases and network designs. Boiling down years of experience into best practices for building scalable networks, this book presents valuable information on the most common problems network operators face when seeking to turn best effort IP networks into networks that can support Public Switched Telephone Network (PSTN)-type availability and reliability.

Beginning with an overview of design fundamentals, the authors discuss the tradeoffs between various competing points of network design, the concepts of hierarchical network design, redistribution, and addressing and summarization. This first part provides specific techniques, usable in all routing protocols, to work around real-world problems. The next part of the book details specific information on deploying each interior gateway protocol (IGP)—including EIGRP, OSPF, and IS-IS—in real-world network environments. Part III covers advanced topics in network design, including border gateway protocol (BGP), high-availability, routing protocol security, and virtual private networks (VPN). Appendixes cover the fundamentals of each routing protocol discussed in the book; include a checklist of questions and design goals that provides network engineers with a useful tool when evaluating a network design; and compare routing protocols strengths and weaknesses to help you decide when to choose one protocol over another or when to switch between protocols.

"The complexity associated with overlaying voice and video onto an IP network involves thinking through latency, jitter, availability, and recovery issues. This text offers keen insights into the fundamentals of network architecture for these converged environments."
—John Cavanaugh, Distinguished Services Engineer, Cisco Systems®

This book is part of the Networking Technology Series from Cisco Press, which offers networking professionals valuable information for constructing efficient networks, understanding new technologies, and building successful careers.

Optimal Routing Design (paperback) (Networking Technology) By Russ White, Alvaro Retana, Don Slice Bibliography

- Sales Rank: #701433 in Books
- Brand: Brand: Cisco Press
- Published on: 2005-06-17
- Released on: 2005-06-07
- Original language: English
- Number of items: 1
- Dimensions: 9.00" h x 1.20" w x 7.30" l, 1.94 pounds
- Binding: Paperback
- 504 pages

Download Optimal Routing Design (paperback) (Networking Tec ...pdf

Read Online Optimal Routing Design (paperback) (Networking T ...pdf

Download and Read Free Online Optimal Routing Design (paperback) (Networking Technology) By Russ White, Alvaro Retana, Don Slice

Editorial Review

From the Back Cover

Techniques for optimizing large-scale IP routing operation and managing network growth

- Understand the goals of scalable network design, including tradeoffs between network scaling, convergence speed, and resiliency
- Learn basic techniques applicable to any network design, including hierarchy, addressing, summarization, and information hiding
- Examine the deployment and operation of EIGRP, OSPF, and IS-IS protocols on large-scale networks
- Understand when and how to use a BGP core in a large-scale network and how to use BGP to connect to external networks
- Apply high availability and fast convergence to achieve 99.999 percent, or "five 9s network uptime
- Secure routing systems with the latest routing protocol security best practices
- Understand the various techniques used for carrying routing information through a VPN

Optimal Routing Design provides the tools and techniques, learned through years of experience with network design and deployment, to build a large-scale or scalable IP-routed network. The book takes an easy-to-read approach that is accessible to novice network designers while presenting invaluable, hard-to-find insight that appeals to more advanced-level professionals as well.

Written by experts in the design and deployment of routing protocols, *Optimal Routing Design* leverages the authors' extensive experience with thousands of customer cases and network designs. Boiling down years of experience into best practices for building scalable networks, this book presents valuable information on the most common problems network operators face when seeking to turn best effort IP networks into networks that can support Public Switched Telephone Network (PSTN)-type availability and reliability.

Beginning with an overview of design fundamentals, the authors discuss the tradeoffs between various competing points of network design, the concepts of hierarchical network design, redistribution, and addressing and summarization. This first part provides specific techniques, usable in all routing protocols, to work around real-world problems. The next part of the book details specific information on deploying each interior gateway protocol (IGP)—including EIGRP, OSPF, and IS-IS—in real-world network environments. Part III covers advanced topics in network design, including border gateway protocol (BGP), high-availability, routing protocol security, and virtual private networks (VPN). Appendixes cover the fundamentals of each routing protocol discussed in the book; include a checklist of questions and design goals that provides network engineers with a useful tool when evaluating a network design; and compare routing protocols strengths and weaknesses to help you decide when to choose one protocol over another or when to switch between protocols.

"The complexity associated with overlaying voice and video onto an IP network involves thinking through latency, jitter, availability, and recovery issues. This text offers keen insights into the fundamentals of network architecture for these converged environments.
—John Cavanaugh, Distinguished Services Engineer, Cisco Systems®

This book is part of the Networking Technology Series from Cisco Press, which offers networking

professionals valuable information for constructing efficient networks, understanding new technologies, and building successful careers.

About the Author

Russ White, CCIE® No. 2635, is a member of the Cisco® Routing Deployment and Architecture team in RTP NC. He works in all areas of routing protocol design, routed network design, and routed network deployment.

Don Slice, CCIE No. 1929, is a development engineer on the Cisco Distance Vector Routing Protocol team, responsible for creating new features and resolving software defects with EIGRP and RIP. Previously, Slice worked on the Cisco Routing Deployment and Architecture and Routing Protocol Escalation teams designing, implementing, and troubleshooting networks running all of the IP routing protocols.

Alvaro Retana, CCIE No. 1609, is a technical leader in the IP Routing Deployment and Architecture team at Cisco, where he works directly on advanced features in routing protocols. His current work includes topics such as BGP Security and ad-hoc networking.

Users Review

From reader reviews:

Michael Battle:

Often the book Optimal Routing Design (paperback) (Networking Technology) has a lot details on it. So when you read this book you can get a lot of profit. The book was compiled by the very famous author. Mcdougal makes some research previous to write this book. This particular book very easy to read you can obtain the point easily after perusing this book.

Dan Williams:

Are you kind of hectic person, only have 10 or 15 minute in your time to upgrading your mind expertise or thinking skill possibly analytical thinking? Then you are experiencing problem with the book as compared to can satisfy your small amount of time to read it because all this time you only find e-book that need more time to be go through. Optimal Routing Design (paperback) (Networking Technology) can be your answer given it can be read by anyone who have those short extra time problems.

Glenn Wallin:

You can spend your free time to see this book this book. This Optimal Routing Design (paperback) (Networking Technology) is simple to bring you can read it in the park, in the beach, train in addition to soon. If you did not get much space to bring often the printed book, you can buy typically the e-book. It is make you easier to read it. You can save the actual book in your smart phone. Consequently there are a lot of benefits that you will get when one buys this book.

Christopher Suttle:

Some people said that they feel uninterested when they reading a e-book. They are directly felt the idea when they get a half regions of the book. You can choose typically the book Optimal Routing Design (paperback) (Networking Technology) to make your reading is interesting. Your own skill of reading skill is developing when you just like reading. Try to choose straightforward book to make you enjoy to read it and mingle the feeling about book and looking at especially. It is to be 1st opinion for you to like to open up a book and read it. Beside that the reserve Optimal Routing Design (paperback) (Networking Technology) can to be your brand new friend when you're truly feel alone and confuse in what must you're doing of these time.

Download and Read Online Optimal Routing Design (paperback) (Networking Technology) By Russ White, Alvaro Retana, Don Slice #UDEMA8TIN3K

Read Optimal Routing Design (paperback) (Networking Technology) By Russ White, Alvaro Retana, Don Slice for online ebook

Optimal Routing Design (paperback) (Networking Technology) By Russ White, Alvaro Retana, Don Slice Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Optimal Routing Design (paperback) (Networking Technology) By Russ White, Alvaro Retana, Don Slice books to read online.

Online Optimal Routing Design (paperback) (Networking Technology) By Russ White, Alvaro Retana, Don Slice ebook PDF download

Optimal Routing Design (paperback) (Networking Technology) By Russ White, Alvaro Retana, Don Slice Doc

Optimal Routing Design (paperback) (Networking Technology) By Russ White, Alvaro Retana, Don Slice Mobipocket

Optimal Routing Design (paperback) (Networking Technology) By Russ White, Alvaro Retana, Don Slice EPub

UDEMA8TIN3K: Optimal Routing Design (paperback) (Networking Technology) By Russ White, Alvaro Retana, Don Slice