



# Definitive MPLS Network Designs (Networking Technology)

By Jim Guichard, François Le Faucheur, Jean-Philippe Vasseur



**Definitive MPLS Network Designs (Networking Technology)** By Jim Guichard, François Le Faucheur, Jean-Philippe Vasseur

Field-proven MPLS designs covering MPLS VPNs, pseudowire, QoS, traffic engineering, IPv6, network recovery, and multicast

- Understand technology applications in various service provider and enterprise topologies via detailed design studies
- Benefit from the authors' vast experience in MPLS network deployment and protocol design
- Visualize real-world solutions through clear, detailed illustrations
- Design studies cover various operator profiles including an interexchange carrier (IXC), a national telco deploying a multiservice backbone carrying Internet and IP VPN services as well as national telephony traffic, an international service provider with many POPs all around the globe, and a large enterprise relying on Layer-3 VPN services to control communications within and across subsidiaries
- Design studies are thoroughly explained through detailed text, sample configurations, and network diagrams

*Definitive MPLS Network Designs* provides examples of how to combine key technologies at the heart of IP/MPLS networks. Techniques are presented through a set of comprehensive design studies. Each design study is based on characteristics and objectives common to a given profile of network operators having deployed MPLS and discusses all the corresponding design aspects.

The book starts with a technology refresher for each of the technologies involved in the design studies. Next, a series of design studies is presented, each based on a specific hypothetical network representative of service provider and enterprise networks running MPLS. Each design study chapter delivers four elements. They open with a description of the network environment, including the set of supported services, the network topology, the POP structure, the transmission facilities, the basic IP routing design, and possible constraints. Then the chapters present design objectives, such as optimizing bandwidth usage. Following these are details of all aspects of the network design, covering VPN, QoS, TE, network recovery, and—where applicable—multicast, IPv6, and pseudowire. The

chapters conclude with a summary of the lessons that can be drawn from the design study so that all types of service providers and large enterprise MPLS architects can adapt aspects of the design solution to their unique network environment and objectives.

Although network architects have many resources for seeking information on the concepts and protocols involved with MPLS, there is no single resource that illustrates how to design a network that optimizes their benefits for a specific operating environment. The variety of network environments and requirements makes it difficult to provide a one-size-fits-all design recommendation. *Definitive MPLS Network Designs* fills this void.

“This book comes as a boon to professionals who want to understand the power of MPLS and make full use of it.”

-Parantap Lahiri, Manager, IP Network Infrastructure Engineering, MCI

Includes a FREE 45-Day Online Edition

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\*\* \*Definitive MPLS Network Designs \(Networking Techno...pdf\*](#)



[\*\*Read Online\*\* \*Definitive MPLS Network Designs \(Networking Tech...pdf\*](#)

# Definitive MPLS Network Designs (Networking Technology)

By Jim Guichard, François Le Faucheur, Jean-Philippe Vasseur

**Definitive MPLS Network Designs (Networking Technology)** By Jim Guichard, François Le Faucheur, Jean-Philippe Vasseur

Field-proven MPLS designs covering MPLS VPNs, pseudowire, QoS, traffic engineering, IPv6, network recovery, and multicast

- Understand technology applications in various service provider and enterprise topologies via detailed design studies
- Benefit from the authors' vast experience in MPLS network deployment and protocol design
- Visualize real-world solutions through clear, detailed illustrations
- Design studies cover various operator profiles including an interexchange carrier (IXC), a national telco deploying a multiservice backbone carrying Internet and IP VPN services as well as national telephony traffic, an international service provider with many POPs all around the globe, and a large enterprise relying on Layer-3 VPN services to control communications within and across subsidiaries
- Design studies are thoroughly explained through detailed text, sample configurations, and network diagrams

*Definitive MPLS Network Designs* provides examples of how to combine key technologies at the heart of IP/MPLS networks. Techniques are presented through a set of comprehensive design studies. Each design study is based on characteristics and objectives common to a given profile of network operators having deployed MPLS and discusses all the corresponding design aspects.

The book starts with a technology refresher for each of the technologies involved in the design studies. Next, a series of design studies is presented, each based on a specific hypothetical network representative of service provider and enterprise networks running MPLS. Each design study chapter delivers four elements. They open with a description of the network environment, including the set of supported services, the network topology, the POP structure, the transmission facilities, the basic IP routing design, and possible constraints. Then the chapters present design objectives, such as optimizing bandwidth usage. Following these are details of all aspects of the network design, covering VPN, QoS, TE, network recovery, and—where applicable—multicast, IPv6, and pseudowire. The chapters conclude with a summary of the lessons that can be drawn from the design study so that all types of service providers and large enterprise MPLS architects can adapt aspects of the design solution to their unique network environment and objectives.

Although network architects have many resources for seeking information on the concepts and protocols involved with MPLS, there is no single resource that illustrates how to design a network that optimizes their benefits for a specific operating environment. The variety of network environments and requirements makes it difficult to provide a one-size-fits-all design recommendation. *Definitive MPLS Network Designs* fills this void.

“This book comes as a boon to professionals who want to understand the power of MPLS and make full use of it.”

-Parantap Lahiri, Manager, IP Network Infrastructure Engineering, MCI

Includes a FREE 45-Day Online Edition

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.

**Definitive MPLS Network Designs (Networking Technology) By Jim Guichard, François Le Faucheur, Jean-Philippe Vasseur Bibliography**

- Sales Rank: #631695 in eBooks
- Published on: 2005-03-14
- Released on: 2005-03-14
- Format: Kindle eBook



[Download Definitive MPLS Network Designs \(Networking Techno ...pdf](#)



[Read Online Definitive MPLS Network Designs \(Networking Tech ...pdf](#)

---

## Download and Read Free Online Definitive MPLS Network Designs (Networking Technology) By Jim Guichard, François Le Faucheur, Jean-Philippe Vasseur

---

### Editorial Review

#### From the Back Cover

Field-proven MPLS designs covering MPLS VPNs, pseudowire, QoS, traffic engineering, IPv6, network recovery, and multicast

- Understand technology applications in various service provider and enterprise topologies via detailed design studies
- Benefit from the authors' vast experience in MPLS network deployment and protocol design
- Visualize real-world solutions through clear, detailed illustrations
- Design studies cover various operator profiles including an interexchange carrier (IXC), a national telco deploying a multiservice backbone carrying Internet and IP VPN services as well as national telephony traffic, an international service provider with many POPs all around the globe, and a large enterprise relying on Layer-3 VPN services to control communications within and across subsidiaries
- Design studies are thoroughly explained through detailed text, sample configurations, and network diagrams

"Definitive MPLS Network Designs" provides examples of how to combine key technologies at the heart of IP/MPLS networks. Techniques are presented through a set of comprehensive design studies. Each design study is based on characteristics and objectives common to a given profile of network operators having deployed MPLS and discusses all the corresponding design aspects. The book starts with a technology refresher for each of the technologies involved in the design studies. Next, a series of design studies is presented, each based on a specific hypothetical network representative of service provider and enterprise networks running MPLS. Each design study chapter delivers four elements. They open with a description of the network environment, including the set of supported services, the network topology, the POP structure, the transmission facilities, the basic IP routing design, and possible constraints. Then the chapters present design objectives, such as optimizing bandwidth usage. Following these are details of all aspects of the network design, covering VPN, QoS, TE, network recovery, and--where applicable--multicast, IPv6, and pseudowire. The chapters conclude with a summary of the lessons that can be drawn from the design study so that all types of service providers and large enterprise MPLS architects can adapt aspects of the design solution to their unique network environment and objectives. Although network architects have many resources for seeking information on the concepts and protocols involved with MPLS, there is no single resource that illustrates how to design a network that optimizes their benefits for a specific operating environment. The variety of network environments and requirements makes it difficult to provide a one-size-fits-all design recommendation. Definitive MPLS Network Designs fills this void. "This book comes as a boon to professionals who want to understand the power of MPLS and make full use of it."-Parantap Lahiri, Manager, IP Network Infrastructure Engineering, MCI Includes a FREE 45-Day Online Edition This book is part of the Networking Technology Series from Cisco Press(R), which offers networking professionals valuable information for constructing efficient networks, understanding new technologies, and building successful careers.

#### About the Author

**Jim Guichard**, CCIE® No. 2069, is a system architect at Cisco Systems®, with a primary focus on MPLS/IP Layer-2 and Layer-3 VPN technologies. During the last eight years at Cisco®, and previously at IBM, Jim has been involved in the design, implementation, and planning of many large-scale WAN and

LAN networks.

**François Le Faucheur** is a system architect at Cisco Systems working in product development and IETF standardization in the area of IP QoS and MPLS. Prior to joining Cisco, he worked for several telecom carriers in France and Australia on the development of enhanced services on ATM, Frame Relay, SMDS, and IP.

**Jean-Philippe Vasseur** is Cisco Distinguished Engineer where he works on IP/MPLS architecture specifications, focusing on IP, TE, and network recovery. He holds an engineering degree from France and an M.S. from the SIT (New Jersey, USA). Before joining Cisco, he worked for several service providers in large multiprotocol environments. He is an active member of the IETF, co-chair of the IETF PCE (Path Computation Element) Working Group and coauthor of several IETF RFCs. He is a regular speaker at various international conferences and is involved in various projects in the area of IP and MPLS. He has also filed several patents in the area of IP and MPLS and is the coauthor of "*Network Recovery*".

## Users Review

### From reader reviews:

#### **Rudy Nixon:**

Often the book Definitive MPLS Network Designs (Networking Technology) will bring that you the new experience of reading a new book. The author style to explain the idea is very unique. Should you try to find new book you just read, this book very ideal to you. The book Definitive MPLS Network Designs (Networking Technology) is much recommended to you to study. You can also get the e-book from official web site, so you can more readily to read the book.

#### **Thomas Krieg:**

Reading a book for being new life style in this yr; every people loves to learn a book. When you examine a book you can get a large amount of benefit. When you read textbooks, you can improve your knowledge, mainly because book has a lot of information in it. The information that you will get depend on what kinds of book that you have read. If you would like get information about your analysis, you can read education books, but if you want to entertain yourself you are able to a fiction books, this kind of us novel, comics, in addition to soon. The Definitive MPLS Network Designs (Networking Technology) provide you with a new experience in reading through a book.

#### **Denise Barnhart:**

You could spend your free time to study this book this book. This Definitive MPLS Network Designs (Networking Technology) is simple bringing you can read it in the area, in the beach, train in addition to soon. If you did not get much space to bring the particular printed book, you can buy the e-book. It is make you quicker to read it. You can save the actual book in your smart phone. Thus there are a lot of benefits that you will get when you buy this book.

**Alita Schmidt:**

A lot of publication has printed but it takes a different approach. You can get it by web on social media. You can choose the most effective book for you, science, comedy, novel, or whatever simply by searching from it. It is named of book Definitive MPLS Network Designs (Networking Technology). You can include your knowledge by it. Without leaving the printed book, it could possibly add your knowledge and make an individual happier to read. It is most important that, you must aware about guide. It can bring you from one location to other place.

**Download and Read Online Definitive MPLS Network Designs  
(Networking Technology) By Jim Guichard, François Le Faucheur,  
Jean-Philippe Vasseur #FKIC3G41UY6**

# **Read Definitive MPLS Network Designs (Networking Technology) By Jim Guichard, François Le Faucheur, Jean-Philippe Vasseur for online ebook**

Definitive MPLS Network Designs (Networking Technology) By Jim Guichard, François Le Faucheur, Jean-Philippe Vasseur 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 Definitive MPLS Network Designs (Networking Technology) By Jim Guichard, François Le Faucheur, Jean-Philippe Vasseur books to read online.

## **Online Definitive MPLS Network Designs (Networking Technology) By Jim Guichard, François Le Faucheur, Jean-Philippe Vasseur ebook PDF download**

**Definitive MPLS Network Designs (Networking Technology) By Jim Guichard, François Le Faucheur, Jean-Philippe Vasseur Doc**

**Definitive MPLS Network Designs (Networking Technology) By Jim Guichard, François Le Faucheur, Jean-Philippe Vasseur MobiPocket**

**Definitive MPLS Network Designs (Networking Technology) By Jim Guichard, François Le Faucheur, Jean-Philippe Vasseur EPub**

**FKIC3G41UY6: Definitive MPLS Network Designs (Networking Technology) By Jim Guichard, François Le Faucheur, Jean-Philippe Vasseur**