



Preface

This *Introduction to DWDM Technology* is intended for readers who want to gain a basic understanding of dense wavelength division multiplexing (DWDM) technology and its role in metropolitan area networks (MANs). The contents are organized as follows:

Chapter	Title	Description
Chapter 1	Introducing DWDM	Differentiates the MAN from other segments of the global network; describes the driving forces behind DWDM; contrasts time division multiplexing (TDM) with wavelength division multiplexing (WDM); presents the advantages of DWDM in the MAN
Chapter 2	Fundamentals of DWDM Technology	Summarizes the evolution of fiber optic transmission and DWDM technology; briefly describes the main components; explains the operation of a DWDM system
Chapter 3	DWDM in Metropolitan Area Networks	Surveys the data link and network technologies used in the MAN; describes sample applications for DWDM; presents sample topologies and protection schemes; offers practical considerations for deploying DWDM

Additional Reading

Readers who are interested in more detailed information about optical networking will find that there is a wide selection of resources available, especially on SONET. The following publications are good, basic texts:

- Dutton, Harry J. R. *Understanding Optical Communications*. Research Triangle Park: IBM Corporation; 1998.
- Goff, David R. *Fiber Optic Reference Guide*, 2nd edition. Boston: Focal Press; 1999.
- Goralski, Walter J. *SONET*, 2nd edition. New York: McGraw-Hill; 2000.
- Kaminow, Ivan P., and Koch, Thomas L., eds. *Optical Fiber Telecommunications*. San Diego: Academic Press; 1997.

The following publication is a detailed text on DWDM, particularly from the standpoint of theory and optical components:

Kartalopoulos, Stamatios V. *Introduction to DWDM Technology: Data in a Rainbow*. New York: IEEE Press; 1999.

Although comprehensive texts specifically about DWDM are not yet plentiful, there is a variety of information in the form of tutorials, white papers, and so on, to be found on the World Wide Web.

For definitions of terms and acronyms used in this Introduction, refer to the *Glossary of Optical Networking Terms*.