



Infinera DTN

System Description Guide

Release 1.3

Version 001

Part Number 090-0017-001

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Infinera DTN and Infinera Optical Line Amplifier Regulatory Compliance

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DOC Class A

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard titled "Digital Apparatus," ICES-003 of the Department of Communications.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe A prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques," NMB-003 édictée par le Ministère des Communications.

Warning

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FDA

This product complies with the DHHS Rules 21 CFR Subchapter J, Section 1040.10, Applicable at date of manufacture.

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About this Document

This chapter provides an overview of the *Infinera DTN and Optical Line Amplifier System Description*. It includes:

- “Objective” on page xv
- “Audience” on page xvi
- “Document Organization” on page xvi
- “Related Documents” on page xvii
- “Conventions” on page xviii
- “Technical Assistance” on page xviii

Objective

This guide provides an introduction and reference to Digital Optical Networking Systems which includes the Infinera® DTN (referred to as the DTN) and Infinera Optical Line Amplifier (referred to as the Optical Line Amplifier) used to build Infinera Digital Optical Network®. This guide also includes Infinera IQ Network Operating System (referred to as the IQ) operating DTN and Optical Line Amplifier network elements, and Infinera MPower Management Suite (referred to as the MPower) provided to manage Infinera products.

Audience

The primary audience for this guide includes network planners, network operations personnel and system administrators who are responsible for deploying and administering the Digital Optical Network. This guide assumes that the reader is familiar with the following topics and products:

- Basic internetworking terminology and concepts
- Dense Wavelength Division Multiplexing (DWDM) technology and concepts

Document Organization

The following table lists the chapters and its description covered in this manual.

Chapter Number: Title	Description
CHAPTER 1: "Introduction"	Provides an introduction to Infinera Digital Optical Network, DTN, Optical Line Amplifier, IQ and MPower products. This chapter also includes a list of Release 1.3 hardware and software features.
CHAPTER 2: "Network Applications"	Describes various configurations and network topologies supported by the DTN network element.
CHAPTER 3: "Digital Optical Networking Systems"	Describes the DTN and Optical Line Amplifier network elements' hardware architecture. This chapter also includes a description of the data plane architecture, control plane architecture, the transport interfaces and the circuit packs.
CHAPTER 4: "IQ Network Operating System"	Describes the OAM&P functions provided by the IQ Network Operating System. This chapter also includes a description of various system features, such as Generalized Multiprotocol Label Switching (GMPLS) Control Plane, and IP Addressing.
CHAPTER 5: "MPower Management Software"	Provides an introduction to Infinera MPower Management Suite which includes MPower Element Management System (referred to as MPower EMS) and MPower Graphical Node Manager (referred to as MPower GNM) applications.
Appendix A: "DTN PM Parameters"	Describes the Performance Monitoring (PM) parameters reported by Infinera DTN and Optical Line Amplifier network elements.
Appendix C: "Optical Channel Plan"	Provides the optical channel plan supported by the DTN and Optical Line Amplifier.
Appendix D: "Acronyms"	Provides a list of acronyms and their definitions used in Infinera Technical Publications.

Related Documents

The reader can refer to the following documents to further understand the content of this manual.

Document Name	Part Number	Description
<i>Infinera DTN Hardware Description</i>	090-0011-001	Provides the detailed description of the Infinera Digital Optical Network hardware modules. This manual covers the functional diagrams, status indicators and technical specifications for each module.
<i>Infinera DTN Maintenance and Troubleshooting Guide</i>	090-0012-001	Provides the routine maintenance and alarm troubleshooting procedures for Infinera DTN and Optical Line Amplifier network elements. This guide includes the routine hardware and software maintenance procedures and various troubleshooting tools. A comprehensive list of alarms and events, and alarm clearing procedures are also included.
<i>Infinera TL1 User Guide</i>	090-0013-001	Describes the TL1 interface supported by Infinera DTN and Optical Line Amplifier network elements. This guide includes the description of the supported TL1 commands and the procedures for the commonly performed OAM&P functions.
<i>Infinera MPower GNM User Guide</i>	090-0014-001	Describes Infinera MPower GNM interface used to manage Infinera DTN and Optical Line Amplifier network elements. This guide also includes the procedures for the commonly performed OAM&P functions.
<i>Infinera MPower EMS User Guide</i>	090-0015-001	Describes the Infinera MPower EMS interface used to manage the Infinera Digital Optical Network comprised of DTN and Optical Line Amplifier network elements. This guide also includes the procedures for the commonly performed OAM&P functions.
<i>Infinera MPower EMS Administrator Guide</i>	090-0016-001	Describes the MPower EMS server installation, administration, security management and routine maintenance procedures.