

DWDM and WDM: Market Shares, Strategies, and Forecasts, Worldwide, 2012 to 2018

<https://marketpublishers.com/r/D425C1A0C75EN.html>

Date: July 2012

Pages: 528

Price: US\$ 3,700.00 (Single User License)

ID: D425C1A0C75EN

Abstracts

WinterGreen Research announces that it has published a new study DWDM and Optical Transport Equipment: Market Shares, Strategy, and Forecasts, Worldwide, 2012 to 2018. The 2012 study has 528 pages, 225 tables and figures. Worldwide DWDM markets are poised to achieve significant growth as the data in networks expands exponentially. As cloud systems proliferate and wireless data takes hold the efficiencies brought by DWDM are needed.

According to Susan Eustis, lead author of the study, 'Everything is going mobile. This evolution is driven by mobile smart phones and tablets that provide universal connectivity. With 6 million cell phones in use and one million smart phones, a lot of people have access to mobile communication. Video, cloud-based services, the internet, and machine-to-machine (M2M) provide mobile connectivity. All these devices are networked and drive significant traffic to the network, stimulating the need for DWDM.'

Mobile changes how consumers behave. Users leverage mobility to communicate. They use it to improve their daily lives. Mobile is growing through existing data services and new services. Users demand connectivity anywhere and anytime. Enterprises are beginning to exploit the opportunities provided by mobility. Mobile communications permit the enterprise improve efficiency by enabling remote services and sales people to work efficiently, by enabling better access to enterprise records from remote sites, by streamlining processes, and by supporting new business models.

New, more affordable smartphones are driving forces for increasing network traffic. The many connected devices on the market create demand for better networks. The total number of mobile subscriptions globally reached 6 billion at year end 2011. 1 billion of

these are for mobile broadband. Machine to machine (M2M) connections are in addition. 30% of all mobile handsets sold during 2011 were smartphones compared to around 20% for 2010.

The strength of the DWDM market is apparent as carriers all over the world move away from legacy SONET/SDH technology and deploy DWDM infrastructures that can support 40G and 100G speeds. As a result, both analyst firms see the DWDM market growing significantly faster than the overall optical hardware market.

Traffic growth is the underlying driver for 40 Gigabit and 100 Gigabit (Gbit) Dense Wave Division Multiplexing (DWDM) network transport. This was the case with the transition from 2.5G to 10G and from 10G to 40G and now 100G optical channel rates. As the number of Internet users expands, bandwidth per user is increasing, putting enormous pressure on core backbone networks and metro networks.

The average mobile PC user generates 2 Gbytes of data per month. A high-traffic smartphone user generates 500 Mbytes per month. Network usage has been increasing, all these devices and 24/7 connectivity mean global mobile data traffic may grow twentyfold by the end of 2018.

Operators are capitalizing on this changing market, enabling users and machines to leverage connectivity. During 2011 various operators started to introduce tiered pricing, to provide price plans, volume, time or speed-based plans. These are better aligned to user needs. Operators are able to create business models to capitalize on different consumer and enterprise segments.

To enable these services, improve user experience, and provide tiered pricing, operators are investing in and transforming their operations and business support systems (OSS and BSS). These systems monitor and optimize network performance for customer relations handling and subscriber support. OSS/BSS investments enable operators to optimize operations and reduce costs.

Worldwide optical transport DWDM equipment market revenues are forecast to grow 10% year-over-year from \$4.3 billion in 2011 to \$9 billion by 2018. This is in the context of a world communications infrastructure that is changing. Technology is enabling interaction, innovation, and sharing of knowledge in new ways.

Contents

DWDM AND OPTICAL TRANSPORT EXECUTIVE SUMMARY

DWDM Market: Impact of Everything Going Mobile

Strength Of The DWDM Market

DWDM and Optical Network Market Driving Forces

DWDM Vendor Strategies to Address Multiservice Network Traffic Market Opportunities

Consumer Network Traffic

DWDM and Optical Transport Market Shares

DWDM and Optical Transport Market Forecasts

1. DWDM AND OPTICAL TRANSPORT MARKET DESCRIPTION AND MARKET DYNAMICS

1.1 Global Optical Transport Market Conditions and Competitive Landscape

1.1.1 100 Gigabit Ethernet and Chips Within 100G Cards

1.1.2 High-Bandwidth Requirements Of Services And Emerging Content-Focused Applications

1.1.3 Spectral Efficiency

1.1.4 Fiber Transmission Impairments

1.1.5 Data Centers A Unique Application For Ethernet

1.2 Consumerization of the Enterprise/Bring Your Own Device (BYOD)

1.3 National Broadband Penetration And Development

1.3.1 Policies and Regulations

1.3.2 Network Construction Models

1.3.3 IoV

1.4 Transformation from 10G per DWDM Channel to 100G per DWDM Channel

1.4.1 Growth in Internet Protocol Traffic

1.5 Optical Networking Market

1.6 DWDM Network Planning

1.7 Mobile Backhaul Solutions

1.8 WDM Solutions In The Metro Region

1.9 OTN Switching

1.10 Integrated Optical Service

1.11 Dynamic Optical Network

2. DWDM AND OPTICAL TRANSPORT MARKET SHARES AND FORECASTS

- 2.1 DWDM Market: Impact of Everything Going Mobile
 - 2.1.1 Strength Of The DWDM Market
 - 2.1.2 DWDM and Optical Network Market Driving Forces
 - 2.1.3 DWDM Vendor Strategies to Address Multiservice Network Traffic Market Opportunities
 - 2.1.4 Consumer Network Traffic
- 2.2 DWDM and Optical Transport Market Shares
 - 2.2.1 DWDM and Optical Transport Long Haul Market Shares
 - 2.2.2 DWDM and Optical Transport Metro Markets
 - 2.2.3 DWDM and Optical Transport 40G Market Shares
 - 2.2.4 DWDM 100G Market Shares
 - 2.2.5 Ciena Market Position
 - 2.2.6 Ciena Customer Engagements
 - 2.2.7 Alcatel-Lucent
 - 2.2.8 Alcatel-Lucent Optical Transport
 - 2.2.9 Huawei
 - 2.2.10 Infinera Integrated ATN/DTN Networks
 - 2.2.11 Infinera DTN System
 - 2.2.12 Infinera DLM Photonic Integrated Circuits
 - 2.2.13 Fujitsu
 - 2.2.14 Nokia/Siemens
 - 2.2.15 Nokia Siemens Networks
 - 2.2.16 Transmode
 - 2.2.17 Transmode SAN Applications
 - 2.2.18 ADVA Innovation Leadership
- 2.3 DWDM and Optical Transport Market Forecasts
 - 2.3.1 40G DWDM Transport Market Forecasts
 - 2.3.2 DWDM 100 G Market Forecasts
 - 2.3.3 Broadband Network Traffic Challenge
 - 2.3.4 Network Router Power Consumption
 - 2.3.5 Mobile Applications
 - 2.3.6 Mobile Subscriptions by Technology
- 2.4 DWDM Optical Transport Pricing
- 2.5 Optical Transport ROI
 - 2.5.1 Fibre Channel Services Deployed Alongside Ethernet Services
- 2.6 DWDM and Optical Transport Regional Market Analysis
 - 2.6.1 Ciena Revenue Per Region
 - 2.6.2 Alcatel-Lucent Revenue Per Region
 - 2.6.3 ADVA Revenue Per Region

2.6.4 China

3. DWDM AND OPTICAL TRANSPORT PRODUCT DESCRIPTION

3.1 Alcatel Lucent 1625 LambdaXtreme Transport

3.1.1 Alcatel-Lucent WaveStar OLS 1.6T, Core DWDM System

3.1.2 Alcatel-Lucent 1830/1850/1870 Family Of Products

3.2 Ciena

3.2.1 Ciena 4200

3.2.2 Ciena Offers A Family Of 4200 Products—4200 Mc 2-Slot, 4200 5-Slot, And 4200 Rs 17-Slot

3.2.3 Ciena Activflex 6500 Packet Optical Platform

3.2.4 Ciena Metro and Long-haul DWDM Infrastructure

3.2.5 Ciena 6500 With Integrated ROADM

3.2.6 Ciena Adaptive Optical Engine Solutions Provide Simplest Upgrades to 40G and 100G

3.2.7 Ciena 40G Ultra-Long-Haul Interfaces Are Available With The Ability To Span Transoceanic Distances

3.2.8 Ciena Ethernet Aggregation Services

3.2.9 Ciena IEEE 802.17b-compliant Resilient Packet Ring

3.2.10 Ciena DWDM Testing

3.2.11 Ciena Simple Network Management

3.2.12 Ciena 6500 Many Network Applications, One Platform

3.3 Ericsson/Marconi Optical Transport

3.3.1 Ericsson/Marconi Product Description

3.1.1 Marconi OMS 3200

3.1.2 Marconi MHL 3000

3.1.3 Marconi OMS 1600

3.1.4 Marconi OMS 1200

3.1.5 Marconi OMS

3.1.6 SPO 1400

3.1.7 MINI-LINK SP

3.3.2 Ericsson/Marconi MHL 3000 Optical DWDM Solution

3.4 Huawei Technologies

3.4.1 Huawei World's First 400G DWDM Prototype for Next Generation Ultra-Broadband Transmission

3.4.2 Huawei Technologies BWS 1600G

3.4.3 Huawei Technologies OSN 8800

3.4.4 Huawei Technologies OSN 6800 & 3800

- 3.4.5 Huawei Technologies OSN1800
- 3.5 Fujitsu
- 3.6 Infinera
 - 3.6.1 Infinera ATN
 - 3.6.2 Infinera ATN Key Features and Benefits
 - 3.6.3 Infinera State-of-the-Art Metro WDM Extension
 - 3.6.4 Infinera High Density Universal Platform Solution
 - 3.6.5 Infinera Multipoint Ethernet Aggregation
 - 3.6.6 Infinera Integrated ATN/DTN Networks
 - 3.6.7 Infinera Regulatory and Compliance Specifications
 - 3.6.8 Infinera DTN
 - 3.6.9 Infinera DTN Features:
 - 3.6.10 Infinera DTN High-Density Transport with Digital Switching
 - 3.6.11 Infinera DTN Reconfigurable Add/Drop
 - 3.6.12 Infinera DTN Carrier-class Reliability and Availability
 - 3.6.13 Infinera Terabit Photonic Integrated Circuit (PIC) Transmitter
- 3.7 Nokia/Siemens
 - 3.7.1 Nokia/Siemens DWDM hiT 7300
 - 3.7.2 Nokia/Siemens hiT 7300 Serviceability
 - 3.7.3 Nokia/Siemens DWDM Network Planning with TransNet/TransConnect
 - 3.7.4 Nokia/Siemens Multiservice Provisioning Platforms (MSPP)
- 3.8 ZTE
 - 3.8.1 ZTE ZXMP M800 Metro DWDM Multiplexer Equipment
 - 3.8.2 ZTE ZXMP M800 Supports OTN Technology, Provides ROADM
- 3.9 Cisco
- 3.10 NEC
 - 3.10.1 NEC
 - 3.10.2 NEC Long-haul DWDM System
- 3.11 Tellabs
- 3.12 Xtera Communications
 - 3.12.1 Xtera Optical Layer Support for Data Intensive Applications
 - 3.12.2 Xtera Unrepeated DWDM Application
 - 3.12.3 Xtera Installation and Operation
 - 3.12.4 Xtera 8500 EMS (Element Management System)
 - 3.12.5 Xtera 6400 OTP
 - 3.12.6 Xtera 6400 Optical Transport Platform
 - 3.12.7 Xtera 8500 EMS Manages Entire Networks
- 3.13 Transmode
 - 3.13.1 Transmode iWDM-PON Solution

- 3.13.2 Transmode DWDM Efficient Transport In Long-Haul Optical Networks
- 3.13.3 Transmode TS-Series CWDM Solution
- 3.13.4 Transmode TM-Series for Carrier-Class CWDM and DWDM Networks
- 3.13.5 Transmode Network Manager
- 3.13.6 Transmode SAN Applications
- 3.14 Digital Lightwave
- 3.15 Adva
 - 3.15.1 ADVA FSP
 - 3.15.2 ADVA Optical Networking
- 3.16 T8

4. DWD AND OPTICAL TRANSPORT TECHNOLOGY

- 4.1 DWDM Ring Diagrams
- 4.2 Coherent DWDM Technologies
 - 4.2.1 Infinera World Class Coherent Engineering Team
 - 4.2.2 Polarization Multiplexing
 - 4.2.3 Value of FlexCoherent Modulation
 - 4.2.4 Very Long Reach (100GbE > 1200km) Networking
- 4.3 Operator DWDM Transport And Switching Technology
 - 4.3.1 Switched Sonet/SDH Optical Crossconnects
- 4.4 IP over DWDM (IPoDWDM)
- 4.5 Switched OTN
- 4.6 Transport Rate Options
 - 4.6.1 Continue to Add 10G Capacity
 - 4.6.2 Upgrade Infrastructure to 40/100G
 - 4.6.3 OTN & 40/100G Transport
 - 4.6.4 40G & 100G Core Transport
 - 4.6.5 40G and 100G Transport
 - 4.6.6 Approaches To WDM-PON
- 4.7 Regional/Long Haul Network Extension
- 4.8 AT&T DWDM WaveMAN Service
 - 4.8.1 MON Ring Service
- 4.9 Ultravailable Network (UVN)
 - 4.9.1 Ultravailable Service Option
 - 4.9.2 Cisco Among IP Suppliers to AT&T
- 4.10 IC Technology Enabling the Digital Optical Network
- 4.11 Electronic to Photonic Integrated Circuits

5 DWDM AND OPTICAL TRANSPORT COMPANY PROFILES

5.1 Alcatel-Lucent

- 5.1.1 Alcatel-Lucent Organization
- 5.1.2 Alcatel-Lucent Innovation & Technology
- 5.1.3 Alcatel-Lucent
- 5.1.4 Alcatel-Lucent First Quarter 2012 Revenue
- 5.1.5 Alcatel-Lucent Geographic Segments
- 5.1.6 Alcatel-Lucent Revenues for the IP Division
- 5.1.7 Alcatel-Lucent 100 Gigabit Ethernet
- 5.1.8 Alcatel-Lucent 100G Optical Coherent Technology
- 5.1.9 Alcatel-Lucent Wireless Division
- 5.1.10 Alcatel-Lucent Wireline Division
- 5.1.11 Alcatel-Lucent Next-Generation Networks Products
- 5.1.12 Alcatel-Lucent Software, Services and Solutions
- 5.1.13 Alcatel-Lucent Network Applications
- 5.1.14 Alcatel-Lucent Enterprise

5.2 Adva

- 5.2.1 ADVA Network Flexibility
- 5.2.2 Adva Network Automation
- 5.2.3 ADVA Service Layers in Optical + Ethernet Networks
- 5.2.4 ADVA Network Automation
- 5.2.5 ADVA Key Facts
- 5.2.6 ADVA Revenue
- 5.2.7 ADVA Customers

5.3 Ciena

- 5.3.1 Ciena Market Opportunity and Strategy
- 5.3.2 Ciena Customer Engagements
- 5.3.3 Ciena Alignment of Research and Development Investment with Segment

Reporting

- 5.3.4 Ciena/Nortel
- 5.3.5 Ciena Packet-Optical Transport
- 5.3.6 Ciena Packet-Optical Switching
- 5.3.7 Ciena Carrier-Ethernet Solutions
- 5.3.8 Ciena Software and Services
- 5.3.9 Ciena Segment Revenue
- 5.3.10 Ciena Regional Revenue
- 5.3.11 Ciena Revenue
- 5.3.12 Ciena Packet-Optical Transport Revenue

- 5.3.13 Ciena -Optical Switching Revenue
- 5.3.14 Ciena Ethernet Solutions Revenue
- 5.3.15 Ciena Software and Services Revenue
- 5.3.16 Ciena Alignment of Research and Development Investment with Growth

Opportunities

5.4 Cisco

- 5.1.1 Cisco Information Technology
- 5.1.2 Cisco Virtualization
- 5.1.3 Competitive Landscape In The Enterprise Data Center
- 5.1.4 Cisco Architectural Approach
- 5.1.5 Cisco Switching
- 5.1.6 Cisco NGN Routing
- 5.1.7 Cisco Collaboration
- 5.1.8 Cisco Service Provider Video
- 5.1.9 Cisco Wireless
- 5.1.10 Cisco Security
- 5.1.11 Cisco Data Center Products
- 5.1.12 Cisco Other Products
- 5.1.13 Cisco Systems Net Sales
- 5.1.14 Cisco Systems Revenue by Segment
- 5.1.1 Cisco Telepresence Systems Segment Net Sales
- 5.4.1 Cisco Tops 10,000 Unified Computing System Customers

5.5 Digital Lightwave

5.6 Ericsson

- 5.6.1 Ericsson/Marconi

5.7 Fujitsu

- 5.7.1 Fujitsu Business Segment Revenue
- 5.7.2 Fujitsu Main Products & Services
- 5.7.3 Fujitsu Makes 100 Gbps DWDM Transmission Using Commercial Fiber Optic Line on Backbone Network Connecting Tokyo and Osaka

5.8 Furukawa Electric/OFS Russia

- 5.8.1 Furukawa Electric/OFS

5.9 Huawei Technologies

- 5.9.1 Huawei Strategy
- 5.9.2 Huawei Carrier Network Business
- 5.9.3 Huawei Enterprise Business
- 5.9.4 Huawei Consumer Business
- 5.9.5 Huawei Technologies Customers
- 5.9.6 Huawei Revenue

5.10 Infinera

5.10.1 Infinera DTN System

5.10.2 Infinera DLM Breakthrough Photonic Integrated Circuits

5.10.3 Infinera Customer Deltacom

5.10.4 Infinera Revenue

5.11 Micron Optics

5.11.1 Micron Optics Embedded Signal Tracking Filter

5.11.2 Micron Optics Tunable Channel Locking

5.11.3 Micron Optics Optical Performance Monitoring

5.12 NEC

5.12.1 NEC IT Services Business

5.12.2 NEC Platform Business

5.12.3 NEC Carrier Network Business

5.12.4 NEC Social Infrastructure Business

5.12.5 NEC Personal Solutions Business

5.13 Nokia Siemens Networks

5.13.1 Nokia Plans And Benefits For A Partnership With Microsoft

5.13.2 Nokia Partnering to Address Smartphone Market

5.13.3 Nokia Siemens Positioning

5.13.4 Nokia Siemens Regions

5.14 T8

5.15 Tellabs

5.15.1 Tellabs Customer Base

5.15.2 Tellabs Mobile Backhaul Solutions

5.15.3 Tellabs Packet Optical Solutions

5.15.4 Tellabs Business Solutions

5.15.5 Tellabs Global Services

5.15.6 Tellabs Regional Revenue

5.15.7 Tellabs Packet Optical

5.15.8 Tellabs Packet Optical Mobile Internet Growth

5.15.9 Tellabs Revenue

5.16 Transmode

5.16.1 Transmode Strategies

5.16.2 Transmode Customers

5.16.3 Russian State Deploys Transmode For Data Centre Interconnect

5.16.4 Transmode Employees

5.16.5 Transmode Revenue

5.16.6 Transmode Significant Events

5.16.7 Transmode Focus On Metro Network

5.17 Xtera Communications

5.18 ZTE

5.18.1 ZTE's 2011 Revenue

5.18.2 ZTE Partner Strategy

List Of Tables

LIST OF TABLES AND FIGURES

- Table ES-1 DWDM and Optical Network Market Driving Forces
- Table ES-2 DWDM Vendor Strategies to Address Multiservice Network Traffic Market Opportunities
- Figure ES-3 DWDM and Optical Transport Market Segments, Dollars, 2011
- Figure ES-4 DWDM and Optical Transport Market Forecasts, Dollars, Worldwide, 2015-2018
- Table 1-1 DWDM Industry State Of The Art Key Technologies
- Table 1-2 Core Network Wavelength Services
- Figure 1-3 Cost per Data Bit for IP Transport
- Table 1-4 Key Optical Networking Questions Facing Network Operators:
- Table 1-5 Optical Networking Market Segments
- Table 1-6 Dense Wavelength Division Multiplexing (DWDM)
- Table 1-7 DWDM Network Planning Benefits:
- Figure 1-8 Optical Networking Market: Long Haul And Metro
- Table 1-9 OTN Switching In The Core Network Benefits
- Table 1-10 Sonet/SDH Electrical Network Layer Functions Key Requirements For Delivering Carrier-Class Services
- Figure 1-11 The OTN Universal Transport Network
- Figure 1-12 Core Modernization Network Diagram
- Table 1-13 Network Technologies Supported By An Integrated Optical Service
- Table 1-14 Service Providers Competitive Advantages Using Integrated Optical Services Technology
- Table 1-15 Integrated Optical Service Benefits
- Table 1-16 Integrated Optical Service Applications
- Table 1-17 Integrated Optical Services Support Network Performance Aspects
- Table 1-18 DWDM Applications
- Table 2-1 DWDM and Optical Network Market Driving Force
- Table 2-2 DWDM Vendor Strategies to Address Multiservice Network Traffic Market Opportunities
- Figure 2-3 DWDM and Optical Transport Market Segments, Dollars, 2011
- Table 2-4 DWDM and Optical Transport Market Shares, Dollars, Worldwide, 2011
- Table 2-5 DWDM and Optical Transport Market Shares, Units, Worldwide, 2011
- Table 2-6 DWDM Long Haul Market Shares, Dollars, Worldwide, 2011
- Table 2-7 DWDM and Optical Transport Long Haul Market Shares, Units, Worldwide, 2011

Table 2-7 Metro CWDM and DWDM Platform Market Shares, Dollars, Worldwide, 2011
Table 2-8 Metro CWDM and DWDM Platform Market Shares, Units, Worldwide, 2011
Table 2-9 DWDM 40G Dollars, Worldwide, 2011
Table 2-10 DWDM 100G Dollars, Worldwide, 2011
Figure 2-11 DWDM and Optical Transport Market Forecasts, Dollars, Worldwide, 2012-2018
Table 2-12 DWDM and Optical Transport Core and Metro Market Segment Forecasts, Dollars and Units, Worldwide, 2012-2018
Figure 2-13 DWDM and Optical Transport Forecast Growth, Dollars and Units, Worldwide, 2012-2018
Table 2-14 DWDM Market Segments, Dollars, 2011
Table 2-15 DWDM and Optical Transport 40G Market Segment Forecasts, Dollars and Units, Worldwide, 2012-2018
Table 2-16 DWDM and Optical Transport 100G Market Segment Forecasts, Dollars and Units, Worldwide, 2012-2018
Figure 2-17 Impact of Internet Delivery Model on Data Traffic
Figure 2-18 Networking vs. Computing Growth
Table 2-19 DWDM Challenges Related to Customization of Network Handling
Figure 2-20 Growth in Mobile Broadband Connections
Figure 2-21 Network Router Comparative Power Consumption
Figure 2-22 Operator Client Interfaces In The Long-Haul Core, 2013
Figure 2-23 Total Mobile and Broadband Subscriptions, Mobile Voice and Data Traffic
Figure 2-24 Global total traffic in mobile networks, 2007–2012, Voice and data
Table 2-25 Ciena DWDM ROI Benefits
Figure 2-26 DWDM and Optical Transport Regional Market Segments, Dollars, 2011
Table 2-27 DWDM Regional Market Segments, 2011
Figure 2-28 Ciena Revenue by Regional Segment
Figure 2-29 Alcatel-Lucent Revenue by Regional Segment
Figure 2-30 ADVA Revenue Per Region
Figure 3-1 Alcatel-Lucent 1625 LambdaXtreme Transport Next-Generation 10Gbps/40Gbps Core DWDM System
Table 3-2 Alcatel-Lucent Core DWDM 1625 LambdaXtreme Transport Benefits
Table 3-3 Alcatel-Lucent Core DWDM 1625 LambdaXtreme Transport Functions
Table 3-4 Alcatel-Lucent Core DWDM 1625 LambdaXtreme Transport Features
Table 3-5 Alcatel-Lucent 1625 LambdaXtreme Transport One Platform for Core Transport Applications
Table 3-6 Alcatel-Lucent Transport Platform for Core Applications
Table 3-7 Alcatel-Lucent 1625 LambdaXtreme Transport Cost-Cutting, Advanced Technologies

Table 3-8 Alcatel-Lucent 1625 LambdaXtreme Transport Enabled Service Offerings

Table 3-9 Alcatel-Lucent Core DWDM 1625 LambdaXtreme Transport Advanced Network Operations Capabilities

Table 3-10 Alcatel-Lucent 1625 LambdaXtreme Transport Technical Specifications

Table 3-11 Alcatel-Lucent Core DWDM Systems

Figure 3-12 Alcatel-Lucent WaveStar OLS 1.6T, Lucent's core DWDM system

Figure 3-13 Alcatel-Lucent Open Business Models for Network Transformation

Figure 3-14 Alcatel-Lucent Converged Backbone Solution

Table 3-15 Ciena Layer 2 Switched Networks And Layer 1 Transport Network Applications

Table 3-16 Ciena FlexiPort Technology Functions

Table 3-17 Ciena 4200 Features and Benefits

Figure 3-18 Ciena Converged Switching For Optimized Bandwidth Management

Table 3-19 Ciena ActivFlex 6500 Series Platform Functions

Figure 3-20 40G Transport Over Existing 10G Network Designs And Fiber

Table 3-21 Ciena Adaptive Optical Engine Solutions Technologies

Figure 3-22 Ciena Delivering Multiservice Business Solutions With A Single Platform

Table 3-23 Ciena DWDM Testing

Table 3-24 Ciena 6500 System Management Capabilities

Table 3-25 Ciena Ready-To Deploy Designs

Figure 3-26 Ciena Adding Flexibility And Scalability to Wireless Backhaul

Table 3-27 Ciena 6500 Technical Information Capacity

Table 3-28 Ciena Programmable FlexiPort Formats

Table 3-29 Ericsson/Marconi Broad Optical Offering

Table 3-30 Ericsson/Marconi Products and Services

Figure 3-31 Ericsson MARCONI MHL 3000 Optical DWDM solution

Table 3-32 Ericsson/Marconi MHL 3000 Key Features

Table 3-33 Ericsson/Marconi MHL 3000 Key Applications

Table 3-34 Ericsson/Marconi MHL 3000 Flexible Network Connectivity

Table 3-35 Ericsson/Marconi 40G Connectivity Features

Table 3-36 Ericsson/Marconi Intelligent Network Functions

Table 3-37 Ericsson/Marconi Optical Transport Network Key Advantages

Figure 3-38 Ericsson/Marconi MHL 3000 Technical Specifications

Table 3-39 Ericsson/Marconi Offers Pluggable, DWDM XFP Optics Applications, Topology, And Capacity

Figure 3-40 Ericsson MHL 3000 40G Muxponder

Figure 3-41 Ericsson MHL 3000 40G Muxponder Functions

Table 3-42 Huawei Technologies WDM/OTN Transport Network

Table 3-43 Huawei Technologies OptiX BWS 1600G Features

Table 3-44 Huawei Technologies OSN 8800 Features
Figure 3-45 Infinera ATN Metro-Optimized CWDM and DWDM platform
Table 3-46 Infinera ATN Key Features and Benefits
Table 3-47 Infinera ATN Key Benefits
Figure 3-48 Infinera ATN Metro Edge Platform Features
Table 3-49 Infinera Key Elements Of The ATN Metro Edge Solution
Figure 3-50 Infinera Regional/Long Haul Network Extension
Figure 3-51 Infinera AT nTM Metro Edge Platform Ethernet Wireless Backhaul Specifications
Figure 3-52 Infinera DTN
Table 3-53 Infinera GMPLS-Based Network Intelligence
Table 3-54 Infinera Photonic Integrated Circuits (PICs) Brings Moore's Law to Optical Networks
Table 3-55 Infinera Service Type Changes
Table 3-56 Infinera Optical Transport
Table 3-57 Infinera DTN Key Topics:
Table 3-58 Infinera DLM Designed To Support Multi Service And Multi-Rate TAMs
Table 3-59 Nokia/Siemens Optical Transport
Table 3-60 Nokia/Siemens DWDM with hiT 7300 Benefits:
Table 3-61 ZTE ZXWM M900 DWDM Target Markets
Figure 3-62 ZTE ZXWM M900 DWDM Equipment
Table 3-63 ZTE ZXWM M900 DWDM Equipment Features
Table 3-64 ZTE DWDM Features
Table 3-65 ZTE ZXWM M900 DWDM Equipment Benefits
Figure 3-66 ZTE ZXWM M920 Backbone DWDM Platform
Table 3-67 ZTE ZXMP M800 is a DWDM System Features
Table 3-68 ZTE ZXMP M800 DWDM Benefits
Figure 3-69 ZXMP M800 Metro DWDM Multiplexer Equipment
Figure 3-70 Cisco ONS 15454 Metro Optical Transport Platform
Table 3-71 NEC DWDM Related Products
Table 3-72 NEC SpectralWave DW4200 ROADM Features
Table 3-73 NEC SpectralWave DW4200 ROADM Benefits
Table 3-74 NEC DWDM DW4000 series Product Set
Table 3-75 NEC Long-haul DWDM System SpectralWave DW4000 LH DWDM Features
Table 3-76 Tellabs Products
Table 3-77 Tellabs 7100 Series Benefits
Table 3-78 Tellabs 7100 Series Specifications
Table 3-79 Xtera XT Benefits
Figure 3-80 Xtera 6400 Optical Transport Platform

Table 3-81 Xtera Management Features

Table 3-82 Transmode Solutions Based on Wavelength Division Multiplexing (WDM) Packet Optical Transport Technologies

Table 3-83 Transmode TS-Series Components

Figure 3-84 Transmode TS-Series

Table 3-85 Transmode TS-Series Features

Figure 3-86 Transmode TS-Series CWDM Solution Features

Figure 3-87 Transmode TM-Series

Table 3-88 Transmode TM-Series Features

Table 3-89 Transmode Versatile TNM Functions

Table 3-90 Digital Lightwave MPLS Key Features

Table 3-91 Digital Lightwave IPv6 Key Features

Figure 3-92 Digital Lightwave NIC NXG 2-slot chassis

Figure 3-93 Digital Lightwave NIC Plus 5-Slot Chassis

Figure 4-1 DWDM Ring Diagrams

Figure 4-2 A single Mach Zehnder Modulator, And The Resulting Phase Constellation

Figure 4-3 High Order Modulation Using A Super Mach Zehnder Structure

Figure 4-4: Polarization of Electromagnetic Wave

Figure 4-5 Next Generation Optical Transport Network

Figure 4-6 Interconnectivity of Core Routers

Figure 4-7 NRZ Spectral Efficiency

Figure 4-8 Comparison of Spectral Efficiencies

Figure 4-9 Capacity in an Optical Fiber, Ignoring Distance

Figure 4-10 DWDM 100GbE Protocol Stack

Figure 4-11 100GbE Span Coverage

Figure 4-12 Drivers for 100G Deployments

Figure 4-13: Coherent intradyne DP-QPSK transmission system. LPF denotes a low-pass filter, PC denotes a passive optical polarization controller, and PBS denotes a polarization beam splitter.

Figure 4-14 Incoherent NRZ-DP-DQPSK system.

Figure 4-15: Regional/Long Haul Network Extension.

Figure 4-16: Ethernet Wireless Backhaul

Figure 4-17 Multiservice Aggregation, Switching And Transport Across The Integrated ATN/DTN network.

Table 4-18 AT&T WaveMAN Service Benefits

Table 4-19 MON Ring Service Provides Benefits

Table 4-20 MON Ring Service Applications

Table 4-21 Ultravailable Network Service (UVN) Functions

Table 4-22 Ultravailable Services Target Markets

Table 4-23 IP core and Edge Domain Router Suppliers

Table 4-24 Large-scale photonic integrated circuits (PICs) Technology Innovation Features

Figure 4-25 Moore's Law for Integrated Circuits

Figure 4-26 Electronic ICs Cost-Effective Aspects

Figure 4-27 Aspects of Optical and Electronic Performance Enhancement

Figure 4-28 Cost Of Optical Components Required To Implement An OEO Conversion Compared To The Cost Of Electronic ICs

Figure 4-29 Conventional DWDM System

Table 5-1 Alcatel-Lucent Research Areas

Table 5-2 Alcatel-Lucent Fundamental Research Specialties

Figure 5-3 Alcatel-Lucent Number One Position in Optical Switching

Figure 5-4 Alcatel-Lucent Revenue by Regional Segment

Figure 5-5 Alcatel-Lucent Revenue by Segment

Table 5-6 ADVA FSP 3000 Product Features

Table 5-7 ADVA FSP 3000 Product Benefits

Table 5-8 Adva Network Automation

Table 5-9 Adva Transport Configurations

Table 5-10 Adva Services

Table 5-11 ADVA Service Layers in Optical + Ethernet Features

Table 5-12 ADVA Automated Service Delivery for Dynamic Optical Networks

Figure 5-13 ADVA Service Layers in Optical + Ethernet Networks

Figure 5-14 ADVA Multi-Degree ROADM Implementation

Figure 5-15 ADVA Business Segment Overview

Figure 5-16 ADVA Enterprise Networks Drivers in Data Center Connectivity

Figure 5-17 ADVA Enterprise Networks Efficient Data Center Connectivity

Figure 5-18 ADVA Ethernet Access: Drivers in Mobile Backhaul

Figure 5-19 ADVA Ethernet Access: Unconstrained Mobile Backhaul

Figure 5-20 ADVA Optical Networking

Figure 5-21 ADVA Annual IFRS Revenues

Figure 5-22 ADVA Revenue Per Region

Figure 5-23 ADVA Carrier Infrastructure Drivers in Optical Infrastructure

Figure 5-24 ADVA Collaboration with Juniper Networks

Figure 5-25 ADVA Capitalizing on Next Generation Networks

Figure 5-26 ADVA Customer Base

Table 5-27 Ciena Target Markets

Table 5-28 Revenue-Related Details Reflecting Sequential Changes From The First Quarter Of Fiscal 2012

Figure 5-29 Fujitsu Business Segment Revenue

Figure 5-30 Fujitsu Technology Solutions Revenue
Table 5-31 Fujitsu Main Products/Services
Table 5-32 Fujitsu Main Companies
Figure 5-33 Huawei Core Values
Figure 5-34 Huawei Focus on Communication
Table 5-35 Huawei Technologies Uganda Challenges
Table 5-36 Huawei Technologies Uganda Telecommunications Network Benefits:
Figure 5-37 Huawei Revenue
Table 5-38 Infinera DLM Photonic Integrated Circuit Specifications
Table 5-39 Infinera Revenue
Table 5-40 Micron Optics Target Markets
Table 5-41 Micron Optics all fiber Fabry-Perot (FFP) Technology
Table 5-42 Micron Optics FFP-TFs Uses:
Figure 5-43 Applications of Tunable Filters In A Dynamic Network
Table 5-44 Micron Optics FFP-TF key features
Table 5-45 Micron Optics FFP-TF Telecom Applications:
Figure 5-46 Micron Optics Network monitoring applications for OCAs and OCMs.
Figure 5-47 Nokia Siemens Regional Market Participation
Figure 5-48 Nokia Siemens Regions
Table 5-49 Transmode Strategies
Figure 5-50 Transmode Total Sales by Quarter 2011-Q1 2012
Figure 5-51 Transmode Total Sales by Region

I would like to order

Product name: DWDM and WDM: Market Shares, Strategies, and Forecasts, Worldwide, 2012 to 2018

Product link: <https://marketpublishers.com/r/D425C1A0C75EN.html>

Price: US\$ 3,700.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/D425C1A0C75EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970