

# **Optical Transport Network Market Report by Technology (WDM, DWDM, and Others), Component (Optical Switch, Optical Transport, Optical Packet), Service (Network Design and Optimization, Network Maintenance and Support Services), End Use Sector (IT and Telecom, Healthcare, Government, and Others), and Region 2024-2032**

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## **Abstracts**

The global optical transport network market size reached US\$ 24.4 Billion in 2023. Looking forward, IMARC Group expects the market to reach US\$ 59.6 Billion by 2032, exhibiting a growth rate (CAGR) of 10.1% during 2024-2032.

An optical transport network (OTN) refers to an industry-standard protocol that provides the functionality of signal transport, signal multiplexing, routing, management, and supervision of the client's data. It includes a set of optical network elements connected via optical fiber links. The advanced multiplexing efficiency of OTN enables the transportation of various traffic types, such as ethernet traffic, multimedia traffic, and various IP-based services. It also offers reliable error correction mechanisms, service transparency for client signals, asynchronous mapping, simplified network design, and reduced deployment costs. As a result, OTN is widely adopted across various sectors, including IT and telecom, healthcare, government, BFSI, etc.

The growing telecommunication sector coupled with the expansion of digital traffic based on multimedia services, social media, VoIP, mobile applications, and cloud computing, is primarily driving the market for OTN. Furthermore, the rising demand for higher bandwidth-based applications for faster and reliable services across the government and financial sectors is also propelling the market growth. The escalating

shift from Synchronous Optical Networking (SONET)/ Synchronous Digital Hierarchy (SDH) networking towards optical transport network based on its high-capacity multiplexed applications over multi-domains is further augmenting the market. Additionally, the increasing development of wireless infrastructures along with the emergence of 5G mobile network services has created substantial growth opportunities for the OTN market. Furthermore, the growing adoption of 5G services for Internet-of-Things (IoT)-based solutions, virtual/augmented reality, and autonomous vehicle management is also propelling the market growth. Moreover, the rising penetration of cloud-based services along with their software-centric network paradigm has enabled the telecom vendors to focus on several service innovations.

The outbreak of the COVID-19 pandemic has also had a positive impact on the optical transport network market due to the rising prevalence of remote working. As a result, there is an increasing demand for higher bandwidth applications for faster and secured services, which is currently driving the market.

#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each segment of the global optical transport network market report, along with forecasts at the global, regional and country levels from 2024-2032. Our report has categorized the market based on technology, component, service, and end use sector.

#### Breakup by Technology:

WDM

Up to 10 Gbps

10 Gbps

40 Gbps

100 Gbps

More Than 100 Gbps

DWDM

Up To 10 Gbps

10 Gbps

40 Gbps

100 Gbps

More Than 100 Gbps

Others

#### Breakup by Component:

Optical Switch

Optical Transport

Optical Packet

#### Breakup by Service:

Network Design and Optimization

Network Maintenance and Support Services

#### Breakup by End Use Sector:

IT and Telecom

Healthcare

Government

Others

## Breakup by Region:

North America

United States

Canada

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Others

Europe

Germany

France

United Kingdom

Italy

Spain

Russia

Others

Latin America

Brazil

Mexico

Others

Middle East and Africa

### Competitive Landscape:

The competitive landscape of the industry has also been examined with some of the key players being Alloy Computer Products, Adtran Inc., ADVA Optical Networking SE, Advanced Micro Devices Inc., Ciena Corporation, Cisco Systems Inc., Huawei Technologies Co. Ltd., Fujitsu Ltd. (Furukawa Group), Infinera Corporation, Nokia Oyj and ZTE Corporation.

### Key Questions Answered in This Report:

How has the global optical transport network market performed so far and how will it perform in the coming years?

What is the impact of COVID-19 on the global optical transport network market?

What are the key regional markets?

What is the breakup of the market based on the technology?

What is the breakup of the market based on the component?

What is the breakup of the market based on the service?

What is the breakup of the market based on the end use sector?

What are the various stages in the value chain of the industry?

What are the key driving factors and challenges in the market?

What is the structure of the global optical transport network market and who are the key players?

What is the degree of competition in the market?

## Contents

### **1 PREFACE**

### **2 SCOPE AND METHODOLOGY**

- 2.1 Objectives of the Study
- 2.2 Stakeholders
- 2.3 Data Sources
  - 2.3.1 Primary Sources
  - 2.3.2 Secondary Sources
- 2.4 Market Estimation
  - 2.4.1 Bottom-Up Approach
  - 2.4.2 Top-Down Approach
- 2.5 Forecasting Methodology

### **3 EXECUTIVE SUMMARY**

### **4 INTRODUCTION**

- 4.1 Overview
- 4.2 Key Industry Trends

### **5 GLOBAL OPTICAL TRANSPORT NETWORK MARKET**

- 5.1 Market Overview
- 5.2 Market Performance
- 5.3 Impact of COVID-19
- 5.4 Market Forecast

### **6 MARKET BREAKUP BY TECHNOLOGY**

- 6.1 WDM
  - 6.1.1 Market Trends
  - 6.1.2 Major Types
    - 6.1.2.1 Up To 10 Gbps
    - 6.1.2.2 10 Gbps
    - 6.1.2.3 40 Gbps
    - 6.1.2.4 100 Gbps

6.1.2.5 More Than 100 Gbps

6.1.3 Market Forecast

6.2 DWDM

6.2.1 Market Trends

6.2.2 Major Types

6.2.2.1 Up To 10 Gbps

6.2.2.2 10 Gbps

6.2.2.3 40 Gbps

6.2.2.4 100 Gbps

6.2.2.5 More Than 100 Gbps

6.2.3 Market Forecast

6.3 Others

6.3.1 Market Trends

6.3.2 Market Forecast

## **7 MARKET BREAKUP BY COMPONENT**

7.1 Optical Switch

7.1.1 Market Trends

7.1.2 Market Forecast

7.2 Optical Transport

7.2.1 Market Trends

7.2.2 Market Forecast

7.3 Optical Packet

7.3.1 Market Trends

7.3.2 Market Forecast

## **8 MARKET BREAKUP BY SERVICE**

8.1 Network Design and Optimization

8.1.1 Market Trends

8.1.2 Market Forecast

8.2 Network Maintenance and Support Services

8.2.1 Market Trends

8.2.2 Market Forecast

## **9 MARKET BREAKUP BY END USE SECTOR**

9.1 IT and Telecom



- 9.1.1 Market Trends
- 9.1.2 Market Forecast
- 9.2 Healthcare
  - 9.2.1 Market Trends
  - 9.2.2 Market Forecast
- 9.3 Government
  - 9.3.1 Market Trends
  - 9.3.2 Market Forecast
- 9.4 Others
  - 9.4.1 Market Trends
  - 9.4.2 Market Forecast

## **10 MARKET BREAKUP BY REGION**

- 10.1 North America
  - 10.1.1 United States
    - 10.1.1.1 Market Trends
    - 10.1.1.2 Market Forecast
  - 10.1.2 Canada
    - 10.1.2.1 Market Trends
    - 10.1.2.2 Market Forecast
- 10.2 Asia Pacific
  - 10.2.1 China
    - 10.2.1.1 Market Trends
    - 10.2.1.2 Market Forecast
  - 10.2.2 Japan
    - 10.2.2.1 Market Trends
    - 10.2.2.2 Market Forecast
  - 10.2.3 India
    - 10.2.3.1 Market Trends
    - 10.2.3.2 Market Forecast
  - 10.2.4 South Korea
    - 10.2.4.1 Market Trends
    - 10.2.4.2 Market Forecast
  - 10.2.5 Australia
    - 10.2.5.1 Market Trends
    - 10.2.5.2 Market Forecast
  - 10.2.6 Indonesia
    - 10.2.6.1 Market Trends

- 10.2.6.2 Market Forecast
- 10.2.7 Others
  - 10.2.7.1 Market Trends
  - 10.2.7.2 Market Forecast
- 10.3 Europe
  - 10.3.1 Germany
    - 10.3.1.1 Market Trends
    - 10.3.1.2 Market Forecast
  - 10.3.2 France
    - 10.3.2.1 Market Trends
    - 10.3.2.2 Market Forecast
  - 10.3.3 United Kingdom
    - 10.3.3.1 Market Trends
    - 10.3.3.2 Market Forecast
  - 10.3.4 Italy
    - 10.3.4.1 Market Trends
    - 10.3.4.2 Market Forecast
  - 10.3.5 Spain
    - 10.3.5.1 Market Trends
    - 10.3.5.2 Market Forecast
  - 10.3.6 Russia
    - 10.3.6.1 Market Trends
    - 10.3.6.2 Market Forecast
  - 10.3.7 Others
    - 10.3.7.1 Market Trends
    - 10.3.7.2 Market Forecast
- 10.4 Latin America
  - 10.4.1 Brazil
    - 10.4.1.1 Market Trends
    - 10.4.1.2 Market Forecast
  - 10.4.2 Mexico
    - 10.4.2.1 Market Trends
    - 10.4.2.2 Market Forecast
  - 10.4.3 Others
    - 10.4.3.1 Market Trends
    - 10.4.3.2 Market Forecast
- 10.5 Middle East and Africa
  - 10.5.1 Market Trends
  - 10.5.2 Market Breakup by Country

### 10.5.3 Market Forecast

## **11 SWOT ANALYSIS**

### 11.1 Overview

### 11.2 Strengths

### 11.3 Weaknesses

### 11.4 Opportunities

### 11.5 Threats

## **12 VALUE CHAIN ANALYSIS**

## **13 PORTERS FIVE FORCES ANALYSIS**

### 13.1 Overview

### 13.2 Bargaining Power of Buyers

### 13.3 Bargaining Power of Suppliers

### 13.4 Degree of Competition

### 13.5 Threat of New Entrants

### 13.6 Threat of Substitutes

## **14 COMPETITIVE LANDSCAPE**

### 14.1 Market Structure

### 14.2 Key Players

### 14.3 Profiles of Key Players

#### 14.3.1 Alloy Computer Products

##### 14.3.1.1 Company Overview

##### 14.3.1.2 Product Portfolio

#### 14.3.2 Adtran Inc.

##### 14.3.2.1 Company Overview

##### 14.3.2.2 Product Portfolio

##### 14.3.2.3 Financials

##### 14.3.2.4 SWOT Analysis

#### 14.3.3 ADVA Optical Networking SE

##### 14.3.3.1 Company Overview

##### 14.3.3.2 Product Portfolio

##### 14.3.3.3 Financials

#### 14.3.4 Advanced Micro Devices Inc.

- 14.3.4.1 Company Overview
- 14.3.4.2 Product Portfolio
- 14.3.4.3 Financials
- 14.3.5 Ciena Corporation
  - 14.3.5.1 Company Overview
  - 14.3.5.2 Product Portfolio
  - 14.3.5.3 Financials
  - 14.3.5.4 SWOT Analysis
- 14.3.6 Cisco Systems Inc.
  - 14.3.6.1 Company Overview
  - 14.3.6.2 Product Portfolio
  - 14.3.6.3 Financials
  - 14.3.6.4 SWOT Analysis
- 14.3.7 Huawei Technologies Co. Ltd.
  - 14.3.7.1 Company Overview
  - 14.3.7.2 Product Portfolio
  - 14.3.7.3 SWOT Analysis
- 14.3.8 Fujitsu Ltd. (Furukawa Group)
  - 14.3.8.1 Company Overview
  - 14.3.8.2 Product Portfolio
  - 14.3.8.3 Financials
  - 14.3.8.4 SWOT Analysis
- 14.3.9 Infinera Corporation
  - 14.3.9.1 Company Overview
  - 14.3.9.2 Product Portfolio
  - 14.3.9.3 Financials
- 14.3.10 Nokia Oyj.
  - 14.3.10.1 Company Overview
  - 14.3.10.2 Product Portfolio
  - 14.3.10.3 Financials
  - 14.3.10.4 SWOT Analysis
- 14.3.11 ZTE Corporation
  - 14.3.11.1 Company Overview
  - 14.3.11.2 Product Portfolio
  - 14.3.11.3 Financials

## List Of Tables

### LIST OF TABLES

Table 1: Global: Optical Transport Network Market: Key Industry Highlights, 2023 and 2032

Table 2: Global: Optical Transport Network Market Forecast: Breakup by Technology (in Million US\$), 2024-2032

Table 3: Global: Optical Transport Network Market Forecast: Breakup by Component (in Million US\$), 2024-2032

Table 4: Global: Optical Transport Network Market Forecast: Breakup by Service (in Million US\$), 2024-2032

Table 5: Global: Optical Transport Network Market Forecast: Breakup by End Use Sector (in Million US\$), 2024-2032

Table 6: Global: Optical Transport Network Market Forecast: Breakup by Region (in Million US\$), 2024-2032

Table 7: Global: Optical Transport Network Market: Competitive Structure

Table 8: Global: Optical Transport Network Market: Key Players

## List Of Figures

### LIST OF FIGURES

Figure 1: Global: Optical Transport Network Market: Major Drivers and Challenges

Figure 2: Global: Optical Transport Network Market: Sales Value (in Billion US\$), 2018-2023

Figure 3: Global: Optical Transport Network Market: Breakup by Technology (in %), 2023

Figure 4: Global: Optical Transport Network Market: Breakup by Component (in %), 2023

Figure 5: Global: Optical Transport Network Market: Breakup by Service (in %), 2023

Figure 6: Global: Optical Transport Network Market: Breakup by End Use Sector (in %), 2023

Figure 7: Global: Optical Transport Network Market: Breakup by Region (in %), 2023

Figure 8: Global: Optical Transport Network Market Forecast: Sales Value (in Billion US\$), 2024-2032

Figure 9: Global: Optical Transport Network (WDM) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 10: Global: Optical Transport Network (WDM) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 11: Global: Optical Transport Network (DWDM) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 12: Global: Optical Transport Network (DWDM) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 13: Global: Optical Transport Network (Other Technologies) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 14: Global: Optical Transport Network (Other Technologies) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 15: Global: Optical Transport Network (Optical Switch) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 16: Global: Optical Transport Network (Optical Switch) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 17: Global: Optical Transport Network (Optical Transport) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 18: Global: Optical Transport Network (Optical Transport) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 19: Global: Optical Transport Network (Optical Packet) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 20: Global: Optical Transport Network (Optical Packet) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 21: Global: Optical Transport Network (Network Design and Optimization) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 22: Global: Optical Transport Network (Network Design and Optimization) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 23: Global: Optical Transport Network (Network Maintenance and Support Services) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 24: Global: Optical Transport Network (Network Maintenance and Support Services) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 25: Global: Optical Transport Network (IT and Telecom) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 26: Global: Optical Transport Network (IT and Telecom) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 27: Global: Optical Transport Network (Healthcare) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 28: Global: Optical Transport Network (Healthcare) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 29: Global: Optical Transport Network (Government) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 30: Global: Optical Transport Network (Government) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 31: Global: Optical Transport Network (Others) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 32: Global: Optical Transport Network (Others) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 33: North America: Optical Transport Network Market: Sales Value (in Million US\$), 2018 & 2023

Figure 34: North America: Optical Transport Network Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 35: United States: Optical Transport Network Market: Sales Value (in Million US\$), 2018 & 2023

Figure 36: United States: Optical Transport Network Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 37: Canada: Optical Transport Network Market: Sales Value (in Million US\$), 2018 & 2023

Figure 38: Canada: Optical Transport Network Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 39: Asia Pacific: Optical Transport Network Market: Sales Value (in Million US\$),

2018 & 2023

Figure 40: Asia Pacific: Optical Transport Network Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 41: China: Optical Transport Network Market: Sales Value (in Million US\$), 2018 & 2023

Figure 42: China: Optical Transport Network Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 43: Japan: Optical Transport Network Market: Sales Value (in Million US\$), 2018 & 2023

Figure 44: Japan: Optical Transport Network Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 45: India: Optical Transport Network Market: Sales Value (in Million US\$), 2018 & 2023

Figure 46: India: Optical Transport Network Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 47: South Korea: Optical Transport Network Market: Sales Value (in Million US\$), 2018 & 2023

Figure 48: South Korea: Optical Transport Network Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 49: Australia: Optical Transport Network Market: Sales Value (in Million US\$), 2018 & 2023

Figure 50: Australia: Optical Transport Network Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 51: Indonesia: Optical Transport Network Market: Sales Value (in Million US\$), 2018 & 2023

Figure 52: Indonesia: Optical Transport Network Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 53: Others: Optical Transport Network Market: Sales Value (in Million US\$), 2018 & 2023

Figure 54: Others: Optical Transport Network Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 55: Europe: Optical Transport Network Market: Sales Value (in Million US\$), 2018 & 2023

Figure 56: Europe: Optical Transport Network Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 57: Germany: Optical Transport Network Market: Sales Value (in Million US\$), 2018 & 2023

Figure 58: Germany: Optical Transport Network Market Forecast: Sales Value (in Million US\$), 2024-2032



Figure 59: France: Optical Transport Network Market: Sales Value (in Million US\$), 2018 & 2023

Figure 60: France: Optical Transport Network Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 61: United Kingdom: Optical Transport Network Market: Sales Value (in Million US\$), 2018 & 2023

Figure 62: United Kingdom: Optical Transport Network Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 63: Italy: Optical Transport Network Market: Sales Value (in Million US\$), 2018 & 2023

Figure 64: Italy: Optical Transport Network Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 65: Spain: Optical Transport Network Market: Sales Value (in Million US\$), 2018 & 2023

Figure 66: Spain: Optical Transport Network Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 67: Russia: Optical Transport Network Market: Sales Value (in Million US\$), 2018 & 2023

Figure 68: Russia: Optical Transport Network Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 69: Others: Optical Transport Network Market: Sales Value (in Million US\$), 2018 & 2023

Figure 70: Others: Optical Transport Network Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 71: Latin America: Optical Transport Network Market: Sales Value (in Million US\$), 2018 & 2023

Figure 72: Latin America: Optical Transport Network Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 73: Brazil: Optical Transport Network Market: Sales Value (in Million US\$), 2018 & 2023

Figure 74: Brazil: Optical Transport Network Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 75: Mexico: Optical Transport Network Market: Sales Value (in Million US\$), 2018 & 2023

Figure 76: Mexico: Optical Transport Network Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 77: Others: Optical Transport Network Market: Sales Value (in Million US\$), 2018 & 2023

Figure 78: Others: Optical Transport Network Market Forecast: Sales Value (in Million

US\$), 2024-2032

Figure 79: Middle East and Africa: Optical Transport Network Market: Sales Value (in Million US\$), 2018 & 2023

Figure 80: Middle East and Africa: Optical Transport Network Market: Breakup by Country (in %), 2023

Figure 81: Middle East and Africa: Optical Transport Network Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 82: Global: Optical Transport Network Industry: SWOT Analysis

Figure 83: Global: Optical Transport Network Industry: Value Chain Analysis

Figure 84: Global: Optical Transport Network Industry: Porter's Five Forces Analysis

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