TERRABIT
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Terrawave Optical Transport Solution

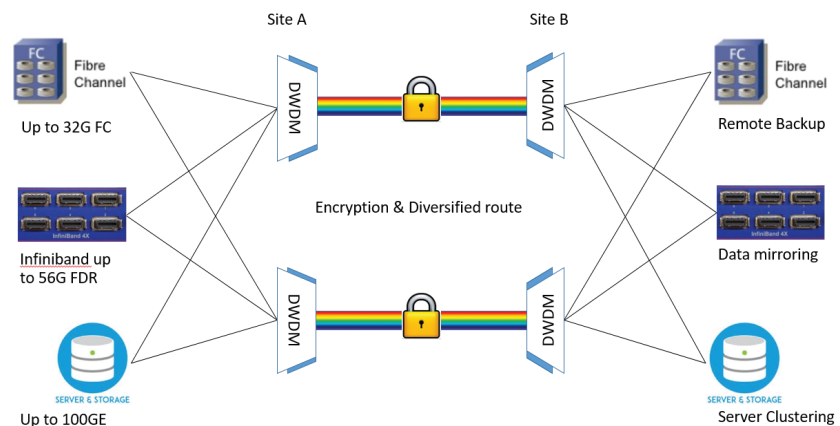## Fiber technology made even better

Introduction

Fibers are everywhere. They can carry ever-increasing amounts of data over great distances. How do you make even better use of the fiber? Multiply its capacity by using Wavelength Division Multiplexing (WDM) technology that uses multiple wavelengths (colors of light) to transport various traffic over a single fiber.

WDM offers cost efficient transport for all applications and services; bitrate and protocol. It scales easily in terms of reach and capacity with rapid protection against any fiber outage. Fiber networks can now transport multiple Terabits of data per second over thousands of kilometers – compared to a decade ago. WDM has become the recognized layer 1 optical transport technology and will lead the way in the future.

Terrabit's Terrawave Solution

Our Terrawave Solution offers state of the art DWDM equipment, dedicated dark fibers, NOC support, all integrated and delivered in a package tailored to your needs. We provide full turnkey system integration from project design, management, implementation, testing & commissioning to acceptance.

Site A   Site B

FC
Fibre Channel
Up to 32G FC

DWDM   DWDM

Encryption & Diversified route

Infiniband up to 56G FDR

DWDM   DWDM

SERVER & STORAGE
Up to 100GE

FC
Fibre Channel
Remote Backup

InfiniBand 4X
Data mirroring

SERVER & STORAGE
Server Clustering

Scalability

Widest range of applications and protocols are supported to suit your network environment. Transporting over native interfaces eliminates the need for protocol translation and ensures lowest latency. Up to 128 wavelengths for 25.6Tbit/s duplex capacity in a single rack. Scale bandwidth anytime you need from 10 to 40 to 100g by expanding the existing system seamlessly. Start small and you can still benefit from the economics of scale later.

Security

Layer 1 encryption at the speed of light provides robust low-latency encryption across line speeds of up to 200Gbit/s and eliminates the need for stand-alone security equipment. Dynamic key exchange and a strictly separated encryption domain manager make the solution compliant with the most stringent regulatory requirements. In fact, you have the fastest performance with the highest security and still save the costs of maintaining separate security devices.

High Availability

Redundant links with diversified routes provides high availability and uptime to your network. Fiber outage or diversion works affects your network. Business gets disrupted and you have to spend more resources to deal with it. With our high availability design, you gain maximum uptime and minimum worries.

Total Ownership or Managed Service

Have total control and ownership of your equipment reducing opex costs or consider a managed service plan with minimal capex costs to start. Or let us work out the best plan for you to decide.

Industry Segments and Applications

Enterprise Networks

Deploying Terrawave using DWDM optical transport network links your business applications to the data and bandwidth your users require, with the low latency they expect. Aggregate multiple 10G Ethernet links and Fibre Channel ports into 100Gbps of mixed traffic through a 1RU Terrawave. Designed and priced for enterprise environments, Terrawave systems are easily managed just like the routers and switches already installed. Whether it is for data centers connectvity, providing low-latency backup for your business, or setting up a colocation center to mirror your server clusters, you will need the Terrawave infrastructure to move that data around.

Financial Trading

Financial trading companies' success relies heavily on the speed and reliability of the DWDM infrastructure within their complex networks. High Frequency Trading firms looking to gain an edge in today's competitive marketplace seek to find a network with the lowest possible latency, without sacrificing reliability. Our terrawave transport solution not only meets these expectations but surpasses them. It delivers ultra-low latency, transmitting any form of data transparently at the speed of light. From shortest route point to point dark fiber linking the trading firms with exchanges to widest range of interfaces to link up your machines directly; complementing with our ultra low latency transport solution, we have the best in class design to make your packets fly faster than the rest.

Education Institutions and R&D

Large education institutions and R&D departments need all the bandwidth to transport the enormous amount of data for that lead in scientific breakthrough. These organizations require a reliable, secure and fast connection. The metro or campus networks frequently need to expand to connect new research partner centers, making scalability among the most critical needs. Terrawave's DWDM solution grow metro networks into regional networks easily and economically. It carries virtually any application over city-wide, nation-wide and international distances. Our Terrawave's appliances provide capacity and range plus the advantage of carrier–class redundancy and extreme reliability. From multiple 100GE links to FDR Infiniband, we have all the hardware to link up every research needs.

Financial Institutions

Financial institutions must ensure security, high availability to meet regulations from the government authorities. Terrawave offers encryption at the speed of light and eliminates the needs for standalone encryption equipment. Redundant links with diversified routes ensures highest availability and uptime to the network. Be it 100GE highspeed connectivity for the mainframes or 32G FC for Disk-Mirroring in storage area networks, Terrawave has solutions that fit them all.

Network Operations Center

Terrabit provides you the most comprehensive and reliable IT Support as a top up on the DWDM services which includes ticketing portal with 24/7 support helpdesk, remote or onsite support and monthly report.

Ticketing Portal

9am - 6pm or 24/7 Support

Service Level Agreement

Monthly Report

Remote or Onsite

Helpdesk

Service Level Agreement
Different levels of SLA can be selected according to your needs.

Tier	Support Hours	Time to Respond	Time to On-site	Time to Resolution	Time to Workaround
Tier 1 (Premium)	24 x 7	30 mins	2 hours (I+2hrs)	4 hours (I+4hrs)	8 hours (I+8hrs) (If solution cannot be found within I+4hrs)
Tier 2 (Enhanced)	24 x 7	1 hr	4 hours (I+4hrs)	8 hours (I+8hrs)	16 hours (I+16hrs) (If solution cannot be found within I+8hrs)
Tier 3 (Standard)	24 x 7	2 hrs	8 hours (I+8hrs)	16 hours (I+16hrs)	32 hours (I+32hrs) (If solution cannot be found within I+16hrs)

*I = Time of incident

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