Glimmerglass
Optical Cyber Solutions

Intelligent Optical Systems

Product Family Overview

Glimmerglass Intelligent Optical Systems

Industry Leading Capabilities

- Industry's most compact / highest port density photonic cross-connect
- Bit rate independent - supports all optical data rates including 100 Gb/s
- Protocol and format independent; compatible with SONET/SDH, Ethernet, C/DWDM, Video, FC, FICON, ESCON, and all others
- Matrix size: 16x16 to 192x192 fiber ports
- Asymmetric configurations
- 20 millisecond switching
- Ultra-low power consumption: < 85 Watts
- Supports dark and very low power connections
- Single mode fiber, wideband (1270 nm - 1630 nm)

Easy to Manage and Use

- SNMPv3
- Web-based user interface
- Import and export topologies
- Command-Line Interface (TL1)

Powerful Carrier-Class Design

- Delivers 99.999+% availability
- In-service software upgrades

Outstanding Reliability

- MTBF > 30 years
- Dual -48V DC or redundant, hot-swappable AC power option

Advanced Optical Signal Management

- Optical power monitoring
- Threshold crossing alerts
- Protection switching rules
- Photonic multicasting for connecting point to multipoint
- Dedicated or switched Variable Optical Attenuation (VOA) to control output power levels
- Virtual Private Switch (VPS) allows administrators to partition ports for individual user access
- Bidirectional operation

Intelligent Optical Signal Management

Glimmerglass Intelligent Optical Systems revolutionize optical signal management by enabling network operators to rapidly and remotely access, distribute and monitor optical signals and create and reconfigure optical paths in real time. Advanced management software combined with purely optical, photonic cross-connects provide remote operators with superior visibility and control of optical signals.

Intelligent Optical Systems provide transparent signal access and are key enablers of the Glimmerglass CyberSweep™. Their unique capabilities enable the dynamic selection and distribution of optical signals for analysis and storage.

Glimmerglass optical systems enable operators to:

- Access and monitor optical signals in real time without disrupting traffic
- Remotely create and reconfigure optical signal paths in milliseconds
- Handle any data rate, any protocol and any format including DWDM
- Select, duplicate, and distribute optical signals to one or many locations
- Continuously monitor signals and remotely test and diagnose optical paths

Create

Glimmerglass systems provide a fully non-blocking, transparent cross-connect. In milliseconds an optical path can be created between any fiber input and output. Since the technology is fully transparent, the newly created optical path will transport any signal regardless of data format or speed.

Monitor

Continuous optical power monitoring combined with transparent switching forms a superior solution for remotely monitoring network paths and performing diagnostics. Loopback paths may be created in milliseconds to help isolate a fault to a particular piece of equipment.

Reconfigure

Glimmerglass systems are the ideal solution for remotely adding, reconfiguring, and disconnecting optical paths on demand and making system level topology changes.

Intelligent Optical Systems

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ClickFlow

Glimmerglass ClickFlow is an embedded, web-based management GUI that comes with every Intelligent Optical System. ClickFlow provides the user with at-a-glance monitoring of optical power levels and connection status as well as point-and-click provisioning of new connections. ClickFlow also provides access to real-time connection reports, connection and port configuration, user management, hardware alarms, and system configuration. ClickFlow is a secure environment that requires authentication.

SNMP

The embedded SNMP agent allows a SNMP manager to monitor, reconfigure, and manage a Glimmerglass Intelligent Optical System with SNMP Gets, Sets, and Trap functions. SNMP version 3 with compatibility to v2 and v1 is supported.

TL1 Command-Line Interface

Transaction Language 1 (TL1) is a management protocol defined in Bellcore Generic Requirements GR-831-CORE. The Glimmerglass Intelligent Optical System extends the TL1 language with a command set that enables command-line and programmatic operation and monitoring of the system.

Glimmerglass Console

The web-based Glimmerglass Console interface accesses the Glimmerglass Console Server application, which runs on an independent server that securely communicates with the switches and receives switch status and events via encrypted packets. The Glimmerglass Console Server provides the following general functions: Admistration of multiple Glimmerglass Intelligent Optical Systems and monitoring of events and user activities.

Markets Served

The ability to quickly create, monitor and reconfigure optical paths has made Glimmerglass Intelligent Optical Systems a mainstay in applications across a range of Cyber Security, Lawful Interception, Intelligence, and Telecom environments.

Cyber Security and Lawful Interception

Glimmerglass Intelligent Optical Systems enhance the Glimmerglass CyberSweep™ by enabling dynamic selection and distribution of signals for analysis and storage.

Intelligence and Defense

The world's elite intelligence agencies from the United States, Europe and Asia employ Glimmerglass Intelligent Optical Systems for enhanced monitoring of optical networks and distribution of mission-critical information.

Telecom Central Offices/POPs

International Service Providers use Glimmerglass Intelligent Optical Systems to gain visibility and control of their optical networks. With Glimmerglass, Service Providers gain enhanced monitoring and response to threats and failures.

Undersea Cable Landing Stations

Glimmerglass Intelligent Optical Systems improve network availability of undersea cables through enhanced monitoring and signal management.

Cyber Lab Automation

Glimmerglass Intelligent Optical Systems combine reliable, field-proven hardware with intuitive management software to create a dynamic optical fabric for lab environments.

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