

The booming growth in optical signal transmission rates and number of protocols presents a challenge for organizations that must access and monitor signals in today's fiber optic networks. Communications Service Providers (CSPs), law enforcement agencies (LEAs), and intelligence agencies require flexible, cost-effective optical signal management solutions that can handle dense or broadly deployed topologies while economically scaling with network growth and protocol evolution. The Glimmerglass Intelligent Optical System (IOS) addresses these issues, allowing operators to rapidly and remotely access, monitor, and distribute optical signals for network monitoring.

Create

Monitor

Reconfigure

The Challenge

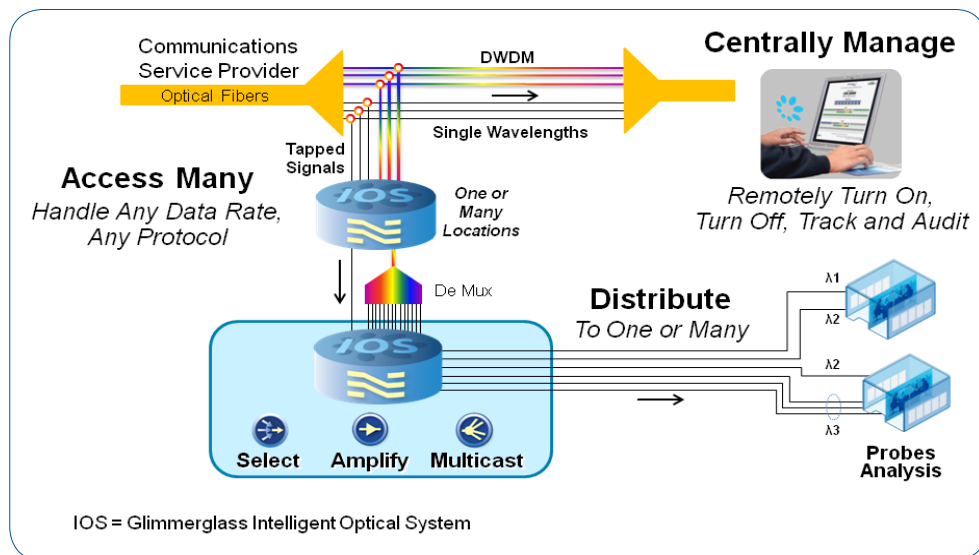
As network traffic continues to increase exponentially, protocols evolve, and optical networks expand, new equipment and capabilities are required to access and monitor communications. In this environment, operators need a more flexible, scalable and cost-effective way to access and monitor their optical signals.

The Need for Intelligent Optical Signal Access and Monitoring

- Efficiently access 10s, 100s or 1000s of optical signals / wavelengths without disrupting network traffic
- Select and distribute optical signals for processing and analysis on demand
- Flexibly handle any data rate, any protocol and any format including DWDM
- Centrally execute, track, and audit optical signal intercepts
- Maximize ROI of probes, processing and analysis equipment

The Solution

Glimmerglass Intelligent Optical Systems integrate powerful software with cutting-edge hardware to provide unmatched flexibility, performance, and cost savings for optical signal access and monitoring. CSPs, LEAs, and intelligence agencies use the IOS to rapidly access target optical signals and distribute them to signal processing and monitoring equipment, all without disrupting network traffic.



The Glimmerglass Intelligent Optical System allows operators to rapidly and remotely access signals, regardless of signal rate or protocol, and to make perfect photonic copies for distribution to monitoring authorities for processing and analysis.

INTELLIGENT OPTICAL SIGNAL SELECTION AND MONITORING

APPLICATION NOTE

With Glimmerglass, CSPs are able to rapidly and efficiently access fiber assets throughout their network. Customers realize OPEX savings through the ability to rapidly and remotely select any signal, including DWDM, from hundreds to thousands of signals in the network. To cooperate with lawful interception requests, Service Providers can use the speed and flexibility of the IOS to select and deliver signals to Law Enforcement Agencies in real time. The IOS adds manageability to persistent, passive optical taps, enabling operators to send signals for analysis at anytime and to anywhere.

LEAs or intelligence agencies tasked with monitoring communications also benefit from the flexibility of the Glimmerglass Intelligent Optical System. With the IOS, the agency gains rapid access, not just to signals, but to individual wavelengths on those signals. An LEA operator can quickly and easily select any signal from hundreds, send that signal to a de-multiplexer for access to one of the many wavelengths inside, and then distribute the desired wavelengths as needed. The IOS can make perfect photonic copies of optical signals for simultaneous distribution to grooming equipment and probes for comprehensive analysis. This ability to multicast and distribute signals results in dramatic reduction of CAPEX by maximizing the ROI of probes through device sharing.

The Glimmerglass Intelligent Optical System is able to handle any data rate and any protocol, making it the ultimate flexible and scalable signal access and monitoring solution. The purely optical, photonic signal management employed by the IOS means that a system managing 10Gb/s data rates today can manage 100Gb/s data rates tomorrow without upgrade. This extreme flexibility comes in a low power, low form-factor product that consumes less than 85 watts of power and fits in just 4RU of rack space.

The Glimmerglass Benefits Summary

- **More quickly and effectively execute and manage optical signal/IP link intercepts**
- **Deploy a scalable, and future-proof solution, compatible with all data rates, signal formats, probes and DPI equipment**
- **Centrally manage the execution, tracking and auditing of non-intrusive intercepts of any fiber asset**
- **Reduce OPEX with rapid, remote access to all optical signals/wavelengths**
- **Significantly reduce CAPEX by increasing utilization of monitoring equipment and reducing the number of probes, DPI and analysis devices required**

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