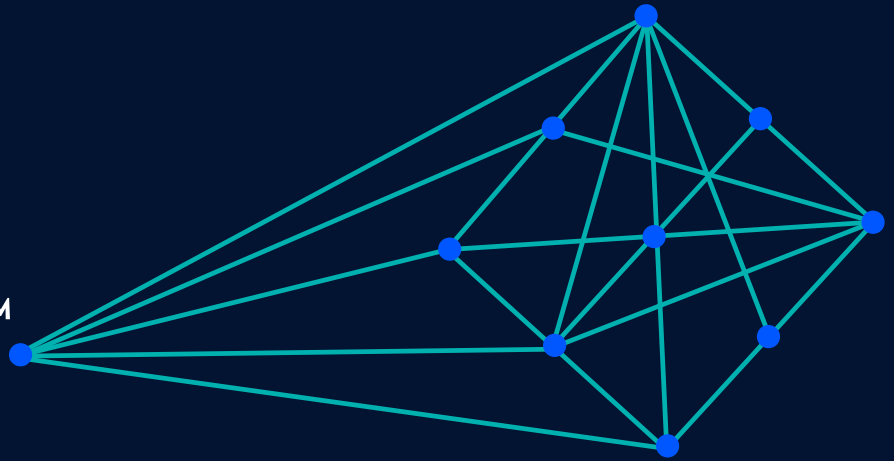


LightPULSE™



INTELLIGENT WAVELENGTH HEALTH MANAGEMENT

Is your network next-generation ready? High-speed transparent and reconfigurable optical networks require effective, flexible, and robust optical performance with real-time monitoring to ensure high-quality service and resiliency. Service providers realize that a healthy network is critical for satisfying customers and meeting Service Level Agreements (SLAs) 24/7.

With ECI's LightPULSE, service providers can accurately understand and monitor optical impairments. As an embedded tool, LightPULSE allows any Apollo or third-party wavelength to be safely monitored across its entire optical span, without interruption or using additional equipment. LightPULSE's unique and comprehensive tools make monitoring easy, all at the click of a mouse. This includes next-generation photonic networks with CDC ROADMs, 400GHz super-channels, and coherent technology. With LightPULSE, the highest level of SLA is assured by calculating protected path trails for WSON restoration switching.

Optimal light path selection

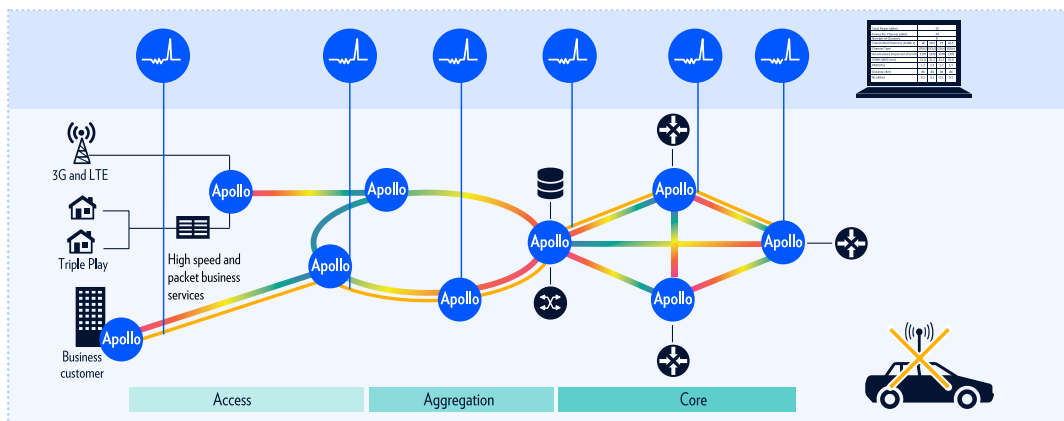
for provisioning and restoration

End-to-end coverage

any Apollo or third-party wavelength

Intelligent wavelength management

fully embedded and automated, hands-free



YOUR CHALLENGES | OUR SOLUTION

OPTIMAL LIGHT PATH SELECTION

<p>Service assurance</p>	<p>Comprehensive analysis and tools</p> <ul style="list-style-type: none"> • Enhanced restoration: highest SLA using accurate OSNR provided by LightPULSE for WSON to select alternative restoration paths • Optical trail: inter-node connectivity for optical wavelengths using real-time optical impairment status • Performance Monitoring: total power, power per channel, number of channels, transmitted channels, channel-type, cumulative Chromatic Dispersion, OSNR, Polarized Mode Dispersion, distance, and non-linearity level
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END-TO-END COVERAGE

<p>Optical performance monitoring (OPM)</p>	<p>E2E complete optical path performance</p> <ul style="list-style-type: none"> • Real time: E2E OPM for any Apollo or third-party wavelength • Optical interfaces: manages any optical interface and optical component in the optical path between all active optical components, including transceivers, ROADMs, and amplifiers
<p>Standard and foreign wavelengths</p>	<p>Optical diversity</p> <ul style="list-style-type: none"> • Spectrum: ITU grid and gridless (ITU G.694.1), extended C-band, fixed grid 50GHz and 100GHz, flexible grid with 6.25GHz granularity • 'Virtual transceiver': any third-party wavelength with all LightPULSE benefits
<p>Expensive optical equipment</p>	<p>Embedded software intelligence</p> <ul style="list-style-type: none"> • LightPULSE: no additional cost or equipment required; LightPULSE is an algorithm running in embedded software in each Apollo network element controller (RCP) and communicates with all active optical components • Measurements: on all transceivers, ingress, and egress of amplifier photodiodes and ROADM Optical Channel Monitors
<p>Wavelength balancing</p>	<p>Intelligent wavelength balancing and automated equalization</p> <ul style="list-style-type: none"> • Optical wavelengths: automatic equalization and balancing of the entire optical network using OSNR, non-linearity, and other optical parameters for active optical components • OSNR performance: prompt and accurate indication of OSNR performance performed remotely via LightSOFT®, saving specialized resources and expensive equipment, like in-band Optical Spectrum Analyzers (OSAs)

INTELLIGENT WAVELENGTH MANAGEMENT

<p>Truck rolls (sending technicians to the site)</p>	<p>LightPULSE GUI</p> <ul style="list-style-type: none"> • Built-in software: shows installed Apollo network equipment information, automatically adjusts optical gain of each amplifier, equalizes optical channels • Reduce errors: automatically adjusts parameters, reducing error-prone manual operations, facilitating deployments, and accelerating wavelength turn-up and troubleshooting
<p>Topologies</p>	<p>Light PULSE supports</p> <ul style="list-style-type: none"> • Topologies: mesh, hub, ring, linear, and point-to-point • Platforms: supports all Apollo and Artemis platforms

Contact us to find out how LightPULSE can monitor your optical network's health



ABOUT ECI

ECI is a global provider of ELASTIC network solutions to CSPs, utilities as well as data center operators. Along with its long-standing, industry-proven packet-optical transport, ECI offers a variety of SDN/NFV applications, end-to-end network management, a comprehensive cyber security solution, and a range of professional services. ECI's ELASTIC solutions ensure open, future-proof, and secure communications. With ECI, customers have the luxury of choosing a network that can be tailored to their needs today – while being flexible enough to evolve with the changing needs of tomorrow. For more information, visit us at www.ecitele.com