

Combine Ethernet Interfaces with Industry-Leading Wavelength Service

The standard Level 3® Intercity Wavelength service provides you with the network transparency you need to control your management and protection scheme with high-speed, dedicated, point-to-point, unprotected wavelength service at 2.5 Gbps and 10 Gbps. For those customers who prefer Ethernet interfaces, Level 3 can now support 10GigE LAN PHY with our wavelength service. Customers benefit from the reduced cost of Ethernet edge interfaces on their IP equipment while still maintaining the same benefits provided by Level 3's wavelength service – control of management and protection via dedicated, high-capacity, unprotected service.

How it Works

10 GigE LAN PHY is a native Ethernet protocol that requires the backbone provider to transport a full 10.000Gbps signal between the customer's Ethernet equipment. Because of this requirement, the DWDM equipment is providing a completely transparent signal to the customer, without any SONET/SDH overhead framing. As a comparison, signals originating from OC-192 POS or 10 GigE WAN PHY interfaces are carried within a SONET/SDH framed 10Gbps Wavelength that provides the customer with 9.28Gbps of actual payload.

Interface Options	Payload	DWDM Equipment	Additional Detail
OC-192 POS	9.28	Legacy and Next-Gen	
10GE WAN PHY	9.28	Legacy and Next-Gen	Transmits Ethernet frames via OC-192 payload
10GE LAN PHY	10	Next-Gen	Fully transparent wavelength

Because of the transparency requirement, newer DWDM equipment supports 10 GigE LAN PHY while most legacy DWDM equipment does not. At Level 3, we have deployed next generation equipment across North America and Europe, making us uniquely able to support 10 GigE LAN PHY service across our network footprint.

Commercial Terms

Pricing – pricing for 10 GigE LAN PHY is consistent with market pricing for standard 10 Gbps wavelengths. For a specific quote, please contact your Level 3 account team.

Availability – Level 3 can support 10 GigE LAN PHY across our networks in both North America and Europe, subject to capacity availability. LAN PHY is not available on Trans-Oceanic systems, due to equipment limitations. Please contact your account team to check for capacity availability.

SLAs – Level 3 provides identical SLAs for 10 GigE LAN PHY as for our standard wavelength service, based upon the theoretical and actual availabilities for an unprotected service. However, more important to unprotected networks is the design of the network. To ensure diversity among all circuits, a customer must build their own higher-layer protection scheme. Level 3 is committed to providing networks without common points of failure (spurs, collapsed segments) that would impact more than one customer circuit.

Investing to Scale with your Business

Level 3 is the primary wavelength backbone provider to some of the world's most sophisticated customers, including three of the top four wireless carriers, three of the top four cable companies, three of the top four European PTTs, two of the top three satellite providers, and three of the top four Internet Service Providers (ISPs)/content providers.

Level 3's ongoing investments to scale our network make Level 3 a provider that can support your future growth. Our wavelength installed base has grown seven fold in the past four years, and we're planning for more. This growth has enabled Level 3 to deploy the latest generation equipment, which allows us to offer new products and services (such as 10 GigE LAN PHY) before other carriers. As Level 3 continues to scale its network, we will continue to be on the leading edge for the new services our customers require.

