SOLUTION BRIEF

Anyhaul Transport
From Access to Submarine and Everything In Between

Blurred Lines

The development of coherent technology has dramatically altered the landscape of the optical transport market. Today's post-third generation coherent solutions are capable of being programmed to deliver the capacity and performance required for any application from a single transponder or muxponder.

The traditional way of segmenting the transport market space into metro-access (up to 100 Km), metro-regional (up to 600 Km), long haul (up to 4000 Km) and ultra-long haul (over 4000 Km), each served by equipment designed specifically for it, no longer applies. Lines between categories have blurred nearly to the point of being irrelevant (see Figure 1).
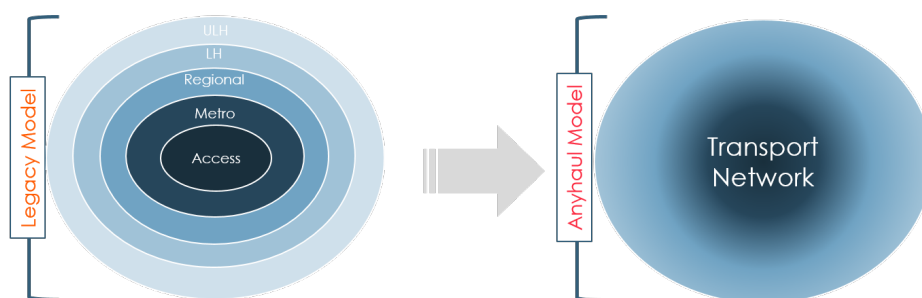

Figure 1 - New Anyhaul Model

Facts & Figures:

- The total WDM equipment market—metro, long haul and submarine—was $14.2B in 2019 and will grow to $16.8B by 2024

- Equipment used for metro transport applications is 50% of the market but sales of long haul focused equipment will grow 25% faster

- For the four quarters ended Q2 2020, over 650,000 coherent ports were shipped in 2019 equivalent to over 100,000 Tbps available capacity and total annual capacity shipped will grow nearly 7X by 2024

- Shipments of 400G+ capable coherent ports is the fastest growing category

These figures illustrate two things:

1. Widespread use and growing adoption of coherent technology
2. Cyclical demand among market segments

Together, they reflect a permanent migration to an Anyhaul-capable environment

The Challenge

As a service provider, the challenge you face is how to improve the capabilities and capacity of your network while minimizing the cost of doing so. This includes:

- Expanding your service area
- Simplifying your transport layer
- Improving network flexibility and control
- Lowering total cost of ownership (TCO)

Ekinops is here to answer those challenges.

Ekinops360

To address this new "anyhaul" marketplace, the Ekinops360 offers its FlexRate™ coherent technology that provides programmable functionality allowing service providers to tune performance for optimal results in all applications from short reach metro-access to ultra-long haul, including submarine networks (see Figure 2).
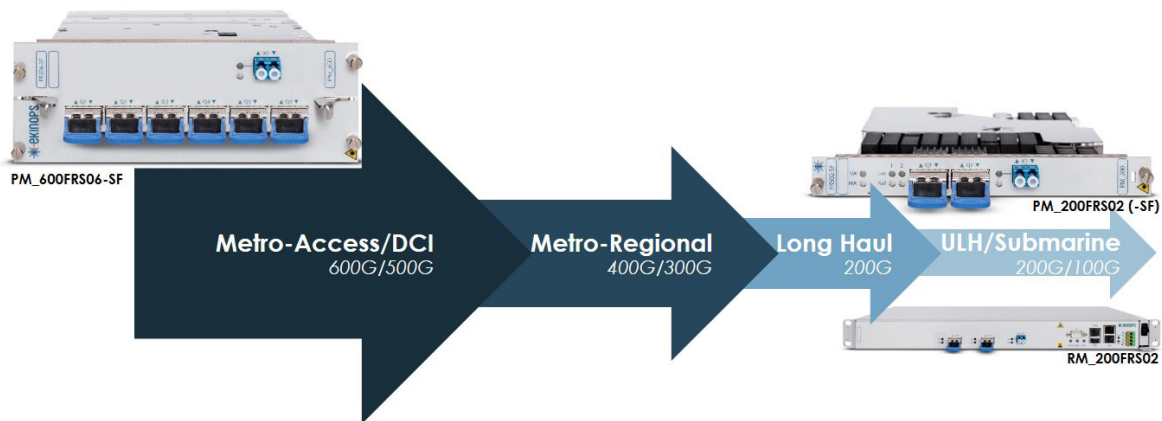

Figure 2 - Ekinops360 FlexRate Anyhaul Solutions

Features

- FlexRate™ programmable line interface—selectable from 100G to 600G
- Single-fiber operation on all line rates from 10G to 600G
- No license fee to upgrade line rate
- 300mm depth—only 600G solution available in telco form factor (true for 300G, 400G and 500G too!)
- Multi-level service aggregation for low-speed transport over high-speed links
- Low noise amplification for long haul applications
- Single span reach over 300Km

- Automatic power balancing

- Easy to install and commission—low OPEX and faster time to revenue

- Lowest equipment cost per 100G (incl. chassis, commons and optics)

Simply by setting basic operating parameters such as OSNR tolerance and channel spacing, FlexRate modules automatically select the optimal modulation format and baud rate to achieve the highest performance possible (see Figure 3).
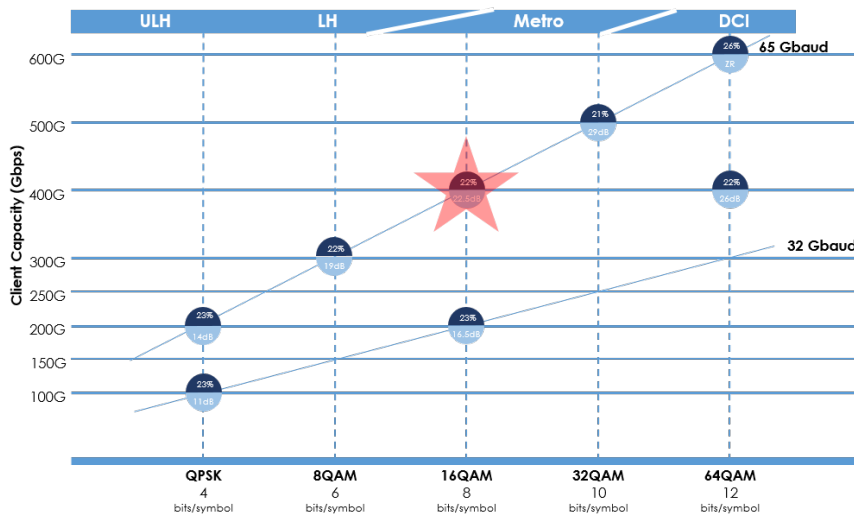

Figure 3 - FlexRate Tunable Performance

Management

Managing your Ekinops360 equipment is easier than installing it. Using EKINOPS Celestis NMS network management system, you can provision, monitor and troubleshoot your Ekinops network end-to-end from your NOC.

Celestis NMS requires only a single DCN connection to the management interface of the near-end shelf using the in-band overhead to carry a 10 Mbps digital communication channel (DCC) or generalized communications channel (GCC) to the other nodes in the network.

Celestis NMS also provides a standard northbound interface (NBI) for seamless integration with your existing higher layer OSS/BSS platform.

Conclusion

Coherent technology has fundamentally altered the way optical transport solutions can be used in the network. The old model segmented by the reach of the equipment used has been replaced.

The Ekinops360 delivers the flexibility, capability and performance required of today's Anyhaul environment. Programmable FlexRate technology coupled single fiber working capability and the modularity of the 360 architecture allows for use in any application. Advanced optics and automated software control ensure optimized performance. Small footprint and low power requirements contribute to lowest cost of ownership.

About Ekinops

Ekinops is a leading provider of open and fully interoperable Layer 1, 2 and 3 solutions to service providers around the world. Our programmable and highly scalable solutions enable the fast, flexible and cost-effective deployment of new services for both high-speed, high-capacity optical transport networks and virtualization-enabled managed enterprise services

Our product portfolio consists of three highly complementary product and service sets: Ekinops360, OneAccess and Compose.

- Ekinops360 provides optical transport solutions for metro, regional and long-distance networks with WDM for high-capacity point-to-point, ring and optical mesh architectures, and OTN for improved bandwidth utilization and efficient multi-service aggregation.

- OneAccess offers a wide choice of physical and virtualized deployment options for Layer 2 and Layer 3 access network functions.

- Compose supports service providers in making their networks software-defined with a variety of software management tools and services, including the scalable SD-WAN Xpress.

As service providers embrace SDN and NFV deployment models, Ekinops enables future-proofed deployment today, enabling operators to seamlessly migrate to an open, virtualized delivery model at a time of their choosing.

A global organization, with operations in 4 continents; Ekinops (EKI) - a public company traded on the Euronext Paris exchange - is headquartered in Lannion, France, and Ekinops Corp., a wholly-owned subsidiary, is incorporated in the USA.

Contact us

sales.eu@ekinops.com | sales.asia@ekinops.com | sales.us@ekinops.com | www.ekinops.com