

SOLUTION BRIEF

Anyhaul Transport From Access to Submarine and Everything In Between

Knowing No Bounds

Today's modern optical transport networks are effectively without boundaries. Advances in coherent optical technology provide multiple levers by which the line rate and performance can be manipulated to achieve virtually any distance from a single programmable interface.

'Anyhaul' transport is the ability to connect any client across any distance on a single transport

infrastructure. The traditional way of segmenting the transport market space into metro-access/enterprise (up to 100 Km), metro-regional (up to 1000 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).

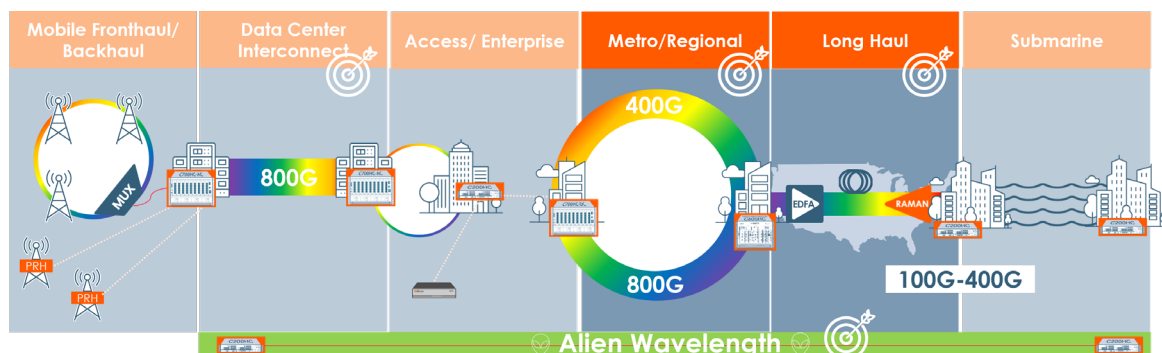


Figure 1 - Anyhaul Transport

Facts & Figures¹:

- The total WDM equipment market—metro, long haul and submarine—was \$16.5B in 2025 and will grow to \$23.7B by 2029
- Equipment used for metro versus long haul transport applications is 50% each² indicating equal demand for each network segment
- Nearly 1.3M coherent ports were shipped in 2025, equivalent to over 560,000 Tbps available capacity and total annual capacity shipped will grow to 1,924,000 Tbps by 2029
- Shipments of 800G+ capable coherent ports is the fastest growing category

¹ Signal AI 4Q25 Transport Hardware Report

² Metro segment includes WDM pluggables and Long Haul segment includes SLTE

These figures illustrate two things:

1. Nearly universal adoption of programmable coherent technology in optical transport networks
2. An insatiable demand for bandwidth across all applications that can only be satisfied by increasing line rates

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.

Ekinops FlexRate™ Solution

To address this new “anyhaul” marketplace, the Ekinops 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). Available on its telco standard 360 and compact modular PTM systems, FlexRate allows the operator to adjust the modulation format and baud rate to achieve the targeted distance at the highest possible line rate.

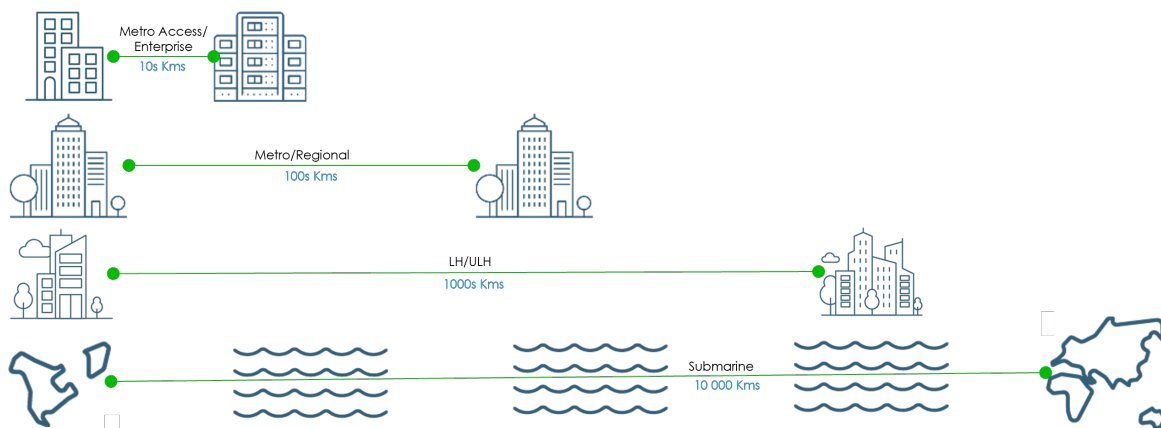


Figure 2 - FlexRate Anyhaul Solutions

Features

- FlexRate™ programmable line interface—selectable from 100G to 800G with no license fee to upgrade
- Single-fiber operation on all line rates from 10G to 600G
- 800G available in telco form factor—in addition to DCI form factor
- 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).

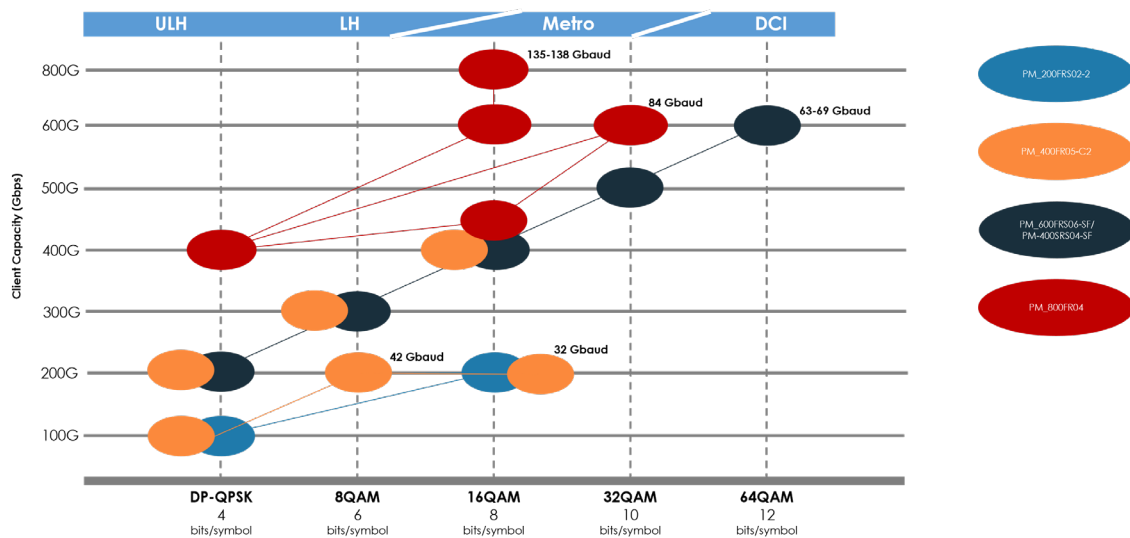


Figure 3 - FlexRate Tunable Performance

Management

Managing your Ekinops 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, including both 360 and PTM devices.

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 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.

Ekinops 360 and PTM solutions deliver the flexibility, capability and performance required of today's Anyhaul environment. Programmable FlexRate technology coupled with single fiber working capability and the modularity of the 360 and PTM architectures allow 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 leader in optical networking and secured connectivity solutions for service providers, enterprises and public organizations around the world.

Ekinops designs, develops and manufactures high-performance solutions with cutting-edge software used to deliver high-bandwidth connectivity and managed services in over 70 countries worldwide.

Ekinops leads in the areas of:

- Advanced coherent optical networking for all metropolitan, regional, long-distance and datacenter interconnection applications
- Secured connectivity solutions for enterprises, from voice and data routing devices to Secure Access Service Edge (SASE) capabilities, including ZTNA (Zero-Trust Network Access), SD-WAN, and SSE.

Ekinops operates globally and is listed on Euronext Paris (FR0011466069 - EKI).

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