

SOLUTION BRIEF

Alien Wavelengths

The Fastest, Easiest Way to Add Capacity at Low Cost

The Need for Bandwidth

As we have seen with the recent global COVID-19 crisis, sudden changes can and do occur that can have dramatic effect on service provider networks. While not every event will cause such a profound shift in data usage patterns and levels or experience such large spikes in demand on a daily basis, this event has demonstrated in stark terms that there will be times when service providers need to add capacity on selected routes quickly at the lowest possible cost.

Alien wavelengths from Ekinops provide instant capacity where you need it at the lowest possible cost and with virtually no impact to your operations.

Facts & Figures:

- Verizon, Akamai and Vodafone reported increases of over 30% in network usage month-to-month and even week-to-week during the spring of 2020.
- Median global data usage grew 60% in 1Q20—more than twice as fast as 4Q19
- Overall global data usage grew 47% in 1Q20
- The monthly weighted average data consumed by subscribers in 1Q20 was over 400 gigabytes (GB), up nearly 50% YoY

This is all on top of the organic increase service providers have experienced with data usage growth rates consistently in excess of 20% on a quarterly basis (see Figure 1).

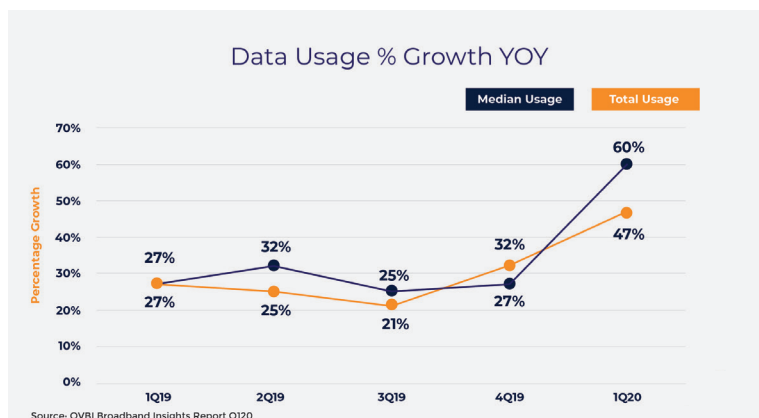


Figure 1 - Data Usage Growth YoY (Source: Broadband Insights Report (OVBI) 1Q 2020)

The Challenge

While global service provider investment in WDM networks over the last few years allowed the industry as a whole to absorb the initial surge in demand, not all providers were equally prepared. Many service providers experienced an exhaustion of their wavelength inventories on spans where demand was heaviest.

As post-crisis data usage levels become the norm, this exhaustion will only accelerate. Research studies⁽¹⁾ show that broadband connection speeds are rapidly increasing with nearly 60% of all connections now 100Mbps or greater. In fact, gigabit connections, the highest service tier, are the fastest growing—nearly doubling year-over-year in 1Q20 and up 34% from 4Q19 alone—while the lowest service tier below 10Mbps is the fastest declining creating a multiplier effect on shifting the broadband center of gravity higher on the scale.

Impact

All of this available bandwidth combined with having more time and applications for which to use it is going to start putting more pressure on your network. The question becomes how to add capacity quickly on the spans where you need it to meet rising demand but also cost-effectively to maintain a sustainable business model. To do that, you need to ask the following questions:

- How do I extend the life of my existing transport infrastructure?
- How much capacity do I need to add and where do I need to add it?
- How do I get this capacity operational as quickly and easily as possible?
- How do I minimize my CAPEX to do this?
- What if my incumbent transport vendor can't deliver the solution I need or in the timeframe I need it?

You also need to determine whether your current vendor is able to meet the increasingly strict security requirements being imposed in some countries.

The Ekinops Solution

Deploying “alien wavelengths” over your existing line system using the Ekinops360 optical transport platform delivers the capacity you need to solve your service issues with the cost-efficiency required to solve your business issues.

It extends the life of your existing infrastructure by replacing multiple 10G circuits with a single high speed connection with line rates of 100G to 600G freeing ports on your filters and allowing you to redeploy your 10G hardware to other areas of the network.

Using either chassis-based modular or stackable 1RU “pizza box” solutions (or a combination of both), you can easily add new channels over your existing line (see Figure 2).

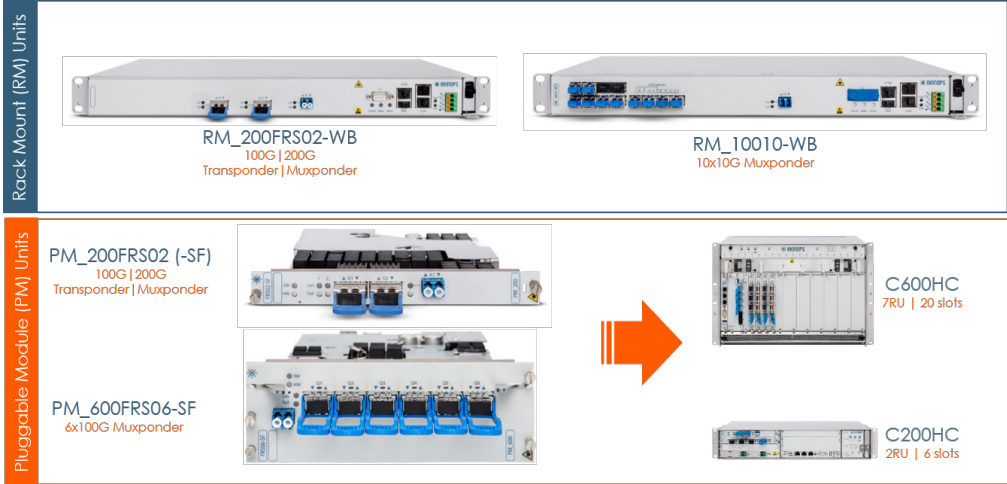


Figure 2 - Ekinops360 Alien Wavelength Solutions

(1) Broadband Insights Report (OVBI) 1Q 2020

Features

- FlexRate™ programmable line interface—100G to 600G—no license fee to upgrade
- Multi-level service aggregation for low-speed transport over high-speed links
- Multiprotocol support—Ethernet, Fibre Channel, SONET/SDH, OTN, Anyrate
- Single-fiber operation on all line rates from 10G to 600G
- Small footprint—only 600G solution available in 300mm depth (300G, 400G and 500G too!)
- Easy to install and commission—low OPEX and faster time to revenue
- Lowest equipment cost per 100G (incl. chassis, commons and optics)

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 alien wavelength 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) to provide far-end management connectivity (see Figure 3).



Figure 3 - DCC based management connectivity

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

Conclusion

Alien wavelengths deliver instant capacity to your network and allow you to add it exactly where you need it without having to upgrade your entire network. With Ekinops, you can be sure to meet all your business, technical and regulatory requirements with a field-tested solution that has been deployed in over 100 networks worldwide both on land and undersea.

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
Dynamic Optical Transport

- 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
Fast Network Virtualization

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

COMPOSE

- 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.