FEATURE | ECI

THE PREMISE OF P-OTS WAS THAT THE INTEGRATION OF PACKET AND OPTICAL TECHNOLOGIES INTO A SINGLE PLATFORM WOULD CREATE OPERATIONAL EFFICIENCIES AND CAPEX SAVINGS BUT WHILE THE IDEA OF P-OTS WAS A GOOD ONE, IT HAS NOT LIVED UP TO THE EXPECTATIONS.

By: Jimmy Mizrahi, NG Optical Networking Product Line Manager, ECI Telecom

P-OTS: Is it Enough?

Packet-optical transport systems, or "P-OTS," burst onto the telecoms scene a few years ago. This new product category was developed to help operators address the bandwidth and capacity demands created by video and data services and the cost pressures associated with these services, which normally generate a great deal less revenue per bit than legacy voice services. The premise of P-OTS was that the integration of packet and optical technologies into a single platform would create operational efficiencies and capex savings that would then result in a lower total cost of ownership (TCO) and reduced cost per bit. This, in turn, was supposed to enable operators to make profitable the new service opportunities that are needed to drive growth. But while the idea of P-OTS was a good one, it has not lived up to the expectations.

SHORTCOMINGS OF P-OTS

So why did P-OTS fall short of the mark? The reason so many first-generation P-OTS platforms failed to deliver on the promise was that they were often strongly based on vendors' previous portfolio and technology strengths or designed to protect the installed base. These repurposed platforms tried to solve operators' current day problems with outdated design objectives and architectures that were ill-suited to the task at hand. It was innovation constrained by the anchor of existing development and the bonds of "in the box" thinking.

Despite its shortcomings, P-OTS was a good interim solution which helped clarify what operators really need in a next-generation (NG) transport solution. P-OTS proved the value of integrating packet and optical technologies in one platform and formed the design objectives for an effective replacement.

So what do operators really need?

OPERATORS' CHALLENGES

Operators have had to face some pretty extraordinary challenges these past few years. Just some of the things keeping them up at night are the rapid evolution of packet services, a diverse and changing mix of traffic and declining revenue per bit. Every day, operators are confronted by an extensive list of daunting issues: the need to overcome planning uncertainty, acquire greater cost-effective scalability, better utilize bandwidth and network assets and more cost-effectively manage network performance. And they have to cope with all these pain points and more while trying to streamline their operations and minimize TCO.

It's a tall order, and the P-OTS platforms of the past are simply not up to the challenge. Meeting these issues in a way that enables operators to survive and thrive in the new market environment requires a new approach to NG transport – one that's capable of achieving the scalability, performance, manageability and revenue objectives that an ever-evolving market demands. This NG transport solution must provide a modular, flexible approach to building networks that fully integrates packet and optical networking technologies in an innovative way to provide support for legacy services while being optimized for the delivery of high-growth services.

What's needed now is a new breed of infrastructure: the Optimized Multi-Layer Transport (OMLT) platform.

INTRODUCING THE OMLT, BEYOND NEXT GENERATION P-OTS

A highly unique and innovative new breed of transport solution, the OMLT, or Optimized Multi-Layer Transport platform, is the first practical answer to operators' scalability and profitability challenges.

So exactly what is it? The OMLT is a purpose-built, next-generation transport solution that integrates multiple network layers in a single, modular device built on an architecture and design philosophy specifically targeted towards operators coping with the explosive ramp up of differentiated multimedia services and video content. It offers unprecedented flexibility, integrated multi-layer management, best-of-breed optical and CESR technologies, and integration of WDM and Layer 1, 2 and 3 technologies.

What's needed now is a fully integrated NG multi-layer transport solution that simplifies operations and optimizes performance and cost for a diverse and changing mix of packet and optical services. The OMLT is that solution.

The OMLT is the first and only NG transport solution that enables true convergence of the optical and packet layers without compromising on cost or functionality, meaning you don't pay for functionality you're not using!

ADDRESSING MARKET NEEDS...TODAY AND GOING FORWARD

The OMLT isn't just a quick fix or another repurposed platform. Rather, it's a groundbreaking solution that was developed specifically to meet the needs of the service provider market today and in the future. But how does it accomplish this? In some very significant ways…

Bandwidth Growth
Bandwidth is growing exponentially in all networks, fueled primarily by the increased consumption of multimedia services across various sectors and device types, including the evolution to 4G in mobile networks. The OMLT addresses this growth by focusing on the true convergence of network layers to reduce the cost of building and operating networks.

Infrastructure Costs
Profitability is being eroded and revenue per bit is declining as a result of the high cost associated with building and operating multiple networks. The OMLT helps to significantly reduce costs by integrating Layers 0-3 functionality in a single platform – optimizing the whole (multi-layered) architecture instead of the individual parts (layers) – to reduce capex, opex and cost per bit.

Revenue Pressure
There is increased pressure on revenues and profits due to the high equipment and operations costs of networks. The OMLT addresses this by providing a modular and flexible system design that enables a low entry cost and pay-as-you-grow scalability for added functionality.

Service Ramp Up and Maintenance
The process of introducing and maintaining new services is getting more complex and taking longer to accomplish in an increasingly competitive market. The OMLT simplifies and accelerates this process by presenting a single management system for all network layers, allowing new services to be introduced quickly and maintained easily.

READY FOR THE NEXT GENERATION

For today's leading operators, P-OTS just isn't enough. What's required is a more intelligent, efficient and flexible solution – one that integrates packet and optical technology, scales cost effectively, makes maximum use of network resources, minimizes TCO and enables the creation of new revenue opportunities while protecting existing revenue streams. Put simply, what's needed now is a fully integrated NG multi-layer transport solution that simplifies operations and optimizes performance and cost for a diverse and changing mix of packet and optical services. The OMLT is that solution, fully marrying the scalability, performance, cost and OAM model of optical networks with the adaptability, cost efficiencies and flexible service creation opportunities of packet networks. □