As the Internet of things grows, is your current bandwidth going to be enough?

As businesses expand—they naturally consume and generate more data that needs to be transported on and off premise. Where traditional networks simply supported low-complexity traffic—the network of today and tomorrow **needs to handle communications, cloud-based services, an influx of connected devices, and increasing streaming of higher-and-higher quality media content.** Network delay and latency become critical—as does the secure and rapid transport of data for highly regulated entities like governments, utilities, financial institutions and healthcare providers. While 10 Gigabit service or even 40 Gigabit service once seemed like it would be more than enough—the trends are clear, **you'll need faster network service in the near future.**

100 Gigabit—the new standard

Long-haul and metro carriers are embracing 100 Gigabit (100G) as the new standard for transport. Recent projections by Heavy Reading and Infonetics forecast 100G bandwidth deployments to outstrip 10G deployments by a factor of 3 in the next 4 years, while 40G deployments remain essentially the same. That's remarkable. And while 40G has been a logical intermediate step for the past few years, the falling costs of 100G deployments is such that the lowest cost per transmitted bit now lies in 100G. 100G simply affords businesses the flexibility for unparalleled expansion as their bandwidth needs increase.

Why upgrade from 10G to 100G?

The simple fact is that with global data consumption growing at 50% year over year, 10G will simply not be enough to accommodate data-heavy industries such as media & entertainment, healthcare, government, utilities, or finance in the near future. With the number of connected devices expected to skyrocket to over 30 billion by 2020, the need for larger, lower latency networks beyond 10G is apparent.

Why upgrade from 40G to 100G?

With more than twice the available bandwidth, you'd expect that the cost of 100G networking to be at least twice that of implementing a 40G system. However, this isn't the case anymore, making the upgrade to 100G attractive for existing 40G users. Users have chosen 40G in order to accommodate heavy usage while still managing cost per transmitted bit. But now, thanks to widespread adoption of 100G by carriers, the cost per transmitted bit is lower for 100G than it is for 40G. These facts make 100G an attractive choice both economically and technologically.

Lightpath®, a market leader in Ethernet-based communication solutions for New York metropolitan area businesses, offers 100 Gigabit Optical Transport Service (OTS) to meet the most demanding use now and to help enterprises prepare for the future. The high-bandwidth service is sold based on a flat, monthly recurring charge and is available across its entire, 100 percent fiber network.

What is OTS?

Optical Transport Services [OTS] is a fully managed, optical transport data service that provides dedicated full-line rate services for the point-to-point interconnection of Local Area Networks, Hosting/Data Centers, or Storage Facilities. Built on Wave Division Multiplexing, 100 Gigabit OTS scales to meet new and emerging application bandwidth requirements.

Lightpath 100G OTS equips, furnishes and installs [EF&I] all fiber optic infrastructure and equipment including Optical Span Engineering, Conditioning, Amplification, and Maintenance all at a standard monthly recurring charge.

100G OTS is well suited for finance, media & entertainment, higher education and healthcare companies currently utilizing 10G or 40G, but preparing for the exponential demand of high-bandwidth services or needing to expand their current networks. Local and state governments, and utilities that must have low-latency and highly secure networks should also explore 100G as a logical next step beyond 10G or 40G.

Lightpath 100G can help you meet virtually unlimited bandwidth capacity requirements while achieving better cost per transmitted bit and expanding network capacity to support future growth. Lightpath is well-positioned and committed to helping you address network expansion needs, as your business evolves.

Benefits of Lightpath 100G OTS

❯ Dedicated Layer 1 Connection / Full Bit Rate Service

❯ Transparent to customer traffic / No limit on frame size

❯ Facilitates large-scale connectivity (100G)

❯ Low Latency Electronics

❯ Route Diversity (routes do not typically follow commonly used central office)

❯ State of the art network / award-winning support

❯ Optional network route protection

❯ Optional equipment protection (shelf redundancy)

❯ Standard battery backup provided

KEY FEATURES	KEY BENEFITS
Speed & Capacity Designed specifically to transport enormous amounts of data. Addresses the need for high capacity solutions to support growth in traffic.	Bandwidth "on-demand" to address unprecedented and unrelenting bandwidth requirements.
Reduce Cost & Complexity Reduce complexity of network management requirements and TCO while improving performance.	Creates efficiency: less equipment, fewer circuits to manage = operational efficiency.
Modernize Update network infrastructure to meet high-bandwidth, delay-sensitive application requirements.	Future scale infrastructure with seamless upgrade paths. Access to Lightpath technical and business support to advise through the upgrade process, from network planning to deployment & optimization.
Scale Capable of scaling dynamically, while delivering the level of performance necessary for the traffic type and end-user business requirements.	Increased resilience enabled by extensively diverse and redundant network routing.