Polatis

Revitalize Data Centers with All-Optical Switching

Today’s insatiable demand for data, driven by media-rich Cloud services and mobile applications, has put data centers in an endless cycle of adding more network equipment to fulfill these demands. Traditional data center network architectures can no longer keep toe-to-toe with rapidly growing traffic needs; bandwidth requirements have become so massive that Layer 2/3 packet switches and routers cannot economically scale to meet these demands. Polatis, a Bedford, MA-based company best known for extensible, low-latency fiber layer switching solutions can optimize the data center network to meet the requirements of today’s data-driven world.

Polatis’s all-optical switching solutions dynamically manage persistent data flows at the fiber layer, minimizing latency and simultaneously relieving congestion on packet switches and routers. The company delivers Software-Defined Networking (SDN) enabled optical layer connectivity which allows for managing both the fiber layer and Layer 2/3 switches and routers from one management console. “Our all optical switches, combined with SDN, enable the physical layer to work in harmony with existing packet layer switches and routers, to increase overall network capacity and meet the ever-increasing traffic demands of data centers,” says Gerald Wesel, President and CEO at Polatis.

Polatis’ family of switches are based on the highly reliable, cost effective, piezoelectric Directlight beam-steering technology that sets the industry standard for lowest optical loss, and highest performance. The Series 6000 family of optical switches is the latest generation all-optical switches offered by Polatis.

In summary, Polatis enables the data center operator to move large amounts of data from one location to another by dynamically reconfiguring the physical layer to automatically allocate bandwidth to where, and when, it is most required. The switches have been commended by many industry experts and major network equipment manufacturers as they allow users to scale their existing networks to meet growing bandwidth demand. “Because of the high-performance and the reliability of our products, we are operating in many different segments, and not just data-centers,” explains Wesel. Polatis has also been deployed in some of the most challenging, and eminent, networks for government, video distribution, telecommunications and oil and gas organizations. However, specifically in the data center, Polatis has been at the forefront, helping customers to create agile networks through dynamic reconfiguration of the physical network layer. “Our specifications allow our clients to overcome the challenges associated with system budgets and help them to achieve their desired goals using existing network equipment,” Wesel adds.

In an implementation highlight, “Bristol is Open”, a programmable smart city digital infrastructure in Bristol, UK, chose Polatis for enhancing their ability to support an open SDN environment. Polatis DirectLight all-optical switches were selected for their proven performance in demanding applications where connection stability, reproducibility, security and low-loss are critical. It played a key role in bringing the fiber layer under software control, laying the framework of a high-performance, scalable, and dynamically reconfigurable optical network.

Polatis is 100 percent focused on meeting its customer’s needs. “We have made some very significant investments for developing our roadmap so that we can respond to our customers in more resilient ways,” says Wesel.