



# Medical technology leader streamlines global connectivity on unified SD-WAN edge platform

Integra LifeSciences maximizes bandwidth utilization to increase application performance and advance its cloud strategy with Unity EdgeConnect and Unity Boost

When you're in the business of enabling surgeons to achieve more positive outcomes for their patients, product quality and efficient business operations are paramount. Imagine, your company's products could make the difference in whether a person ever walks again, or is able to hold an object in their hands. That's why Integra LifeSciences, a global leader in regenerative technologies and solutions for neurological and orthopedic surgery, is focused on

enabling its engineers, operations staff, marketers, and customer service professionals to understand and respond to the constantly advancing needs of surgeons around the world.

To put innovative products in the hands of busy surgeons, Integra relies on a wide range of business and technical applications, including a global enterprise resource planning (ERP) solution, computer-aided design (CAD) programs, and cloud-based



INCREASED  
BANDWIDTH  
50 – 75%

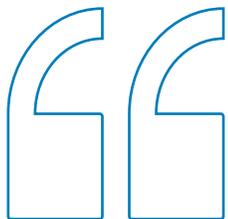


REDUCED WAN  
TRAFFIC BY  
40 TB



IMPROVED NETWORK  
UPTIME WITH SUB-  
SECOND FAILOVER

business productivity tools such as Microsoft Office 365 and Salesforce. Employees across multiple continents need to access these applications, as well as transfer large files, across Integra's global wide area network (WAN).



**Having the EdgeConnect SD-WAN platform makes it easier for us to adopt more SaaS applications and eventually move our own workloads into the cloud. It will allow us to get higher bandwidth at lower cost than MPLS, while delivering the highest quality of experience to our end users."**

— James Heyburn, Manager –  
Network Engineering, Integra LifeSciences

To accelerate file transfers and other critical traffic across its network, Integra had been using WAN optimization from a leading vendor. When the maintenance contract on that legacy product was due to expire, James Heyburn, Integra's manager of network engineering, wanted to take a fresh look at the WAN optimization market. So, he called upon the company's technology partner, [CDW](#), to help identify and introduce him to the top players, including Silver Peak.

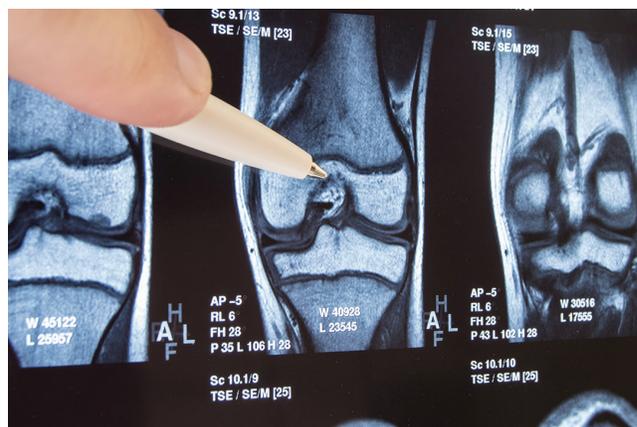
## Flexible, unified platform to meet evolving business needs

Heyburn conducted an intensive evaluation of WAN optimization products. However, because encrypted traffic does not benefit as much from

WAN optimization, and with more cloud applications requiring greater bandwidth utilization, the conversation quickly turned to SD-WAN. Ultimately, Heyburn determined Silver Peak offered something many other vendors couldn't: a seamless path from WAN optimization to SD-WAN, leveraging the [Unity EdgeConnect™](#) SD-WAN edge platform.

"EdgeConnect brought us a unified platform with the flexibility to deploy WAN optimization, then transition to SD-WAN when we were ready," Heyburn points out.

Like many companies, Integra relied primarily on private MPLS circuits while backup internet circuits remained mostly idle. In a phased approach, Heyburn first deployed the Silver Peak [Unity Boost™](#) WAN optimization performance pack to accelerate Integra's internally developed applications, CIFS/SMB file sharing, and HTTP traffic. Satisfied with Boost, he then decommissioned the legacy WAN optimization solution and rolled out the EdgeConnect SD-WAN platform, initially bonding MPLS and internet circuits to maximize available bandwidth from Integra's existing network infrastructure.



Today, Integra has built an SD-WAN on EdgeConnect that spans 31 of its 35 branch locations around the world, with plans to bring the remaining sites onto the SD-WAN as soon as possible. In addition to tunnel bonding, Heyburn also takes advantage of other EdgeConnect SD-WAN capabilities, including [path conditioning](#), quality of service, and [dynamic path control](#). Moreover, EdgeConnect provides Integra with intelligent routing interoperability and a stateful

zone-based firewall that Heyburn can turn on with the click of a few buttons to address evolving business needs and support future cloud initiatives.

## Higher application performance and network uptime

Since implementing the EdgeConnect SD-WAN edge platform, Heyburn reports that he's seen available bandwidth jump 50 – 75 percent. This increase translates to higher application performance across the board. In addition, the data compression and deduplication provided by Boost has taken approximately 40 TB of data off Integra's network since implementation, and continues to shrink data 10 – 12 TB per month, further improving performance for Boost-enabled applications.

With sub-millisecond failover between its MPLS and internet circuits, Integra has also increased network uptime. In the past, router-based failover from MPLS to the internet backup typically caused one or two minutes of downtime—a frustrating annoyance to employees in the middle of a big project. Heyburn notes that doesn't happen anymore. "With EdgeConnect, traffic flows instantly from one circuit to the other. We may see one of the underlying links drop, but the users don't notice anything."

## Streamlines WAN administration and troubleshooting

To centrally manage the SD-WAN, Heyburn and his team rely on [Unity Orchestrator™](#) centralized management software, which streamlines everything from issuing policy updates to gaining insights into traffic flows and network health.

"We use Orchestrator every day," Heyburn says positively. "It allows us to configure business intent overlays in one place and then push them out to all our sites so we have uniform configurations across the SD-WAN. It's a real time-saver over having to log into each individual device and manually program changes and updates. And it provides an important building block for us to enable more automation of our SD-WAN in the future."

He adds, "Orchestrator is a great place to gather information on WAN activity. It's where we get our

statistics on data flow, which we can analyze to plan future network requirements. Orchestrator also detects circuit outages before they show up on our internal management systems. It's helpful to know that information right away so we can address the issue more quickly. And if we have persistent stability problems with a particular connection, that insight gives us better leverage with the provider."



## Paves the way for an expanding cloud strategy

Looking ahead, the EdgeConnect SD-WAN edge platform positions Integra to take greater advantage of the economic and bandwidth advantages of broadband as MPLS contracts expire. And using the built-in routing and security capabilities of EdgeConnect will enable the company to eventually retire separate branch routers and firewalls, and provide direct internet breakout at branch locations. This is especially important as the company sets its sights on moving more applications and workloads to the cloud.

"Having enough bandwidth is always the biggest struggle, especially when moving lots of data up and down from the cloud," says Heyburn. "Having the EdgeConnect SD-WAN edge platform makes it easier for us to adopt more SaaS applications and eventually move our own workloads into the cloud. It will allow us to get higher bandwidth at lower cost than MPLS, while delivering the highest quality of experience to our end users."

For more information on Silver Peak and our solutions, please visit: [silver-peak.com](https://silver-peak.com)

## Customer

**Integra LifeSciences** is a global leader in regenerative technologies, neurosurgical and extremity orthopedic solutions dedicated to limiting uncertainty for clinicians, so they can focus on providing the best patient care. Integra's orthopedic products include devices and implants for foot and ankle, hand and wrist, shoulder and elbow, tendon and peripheral nerve protection and repair, and wound repair. Integra is a leader in neurosurgery, offering a broad portfolio of implants, devices, instruments and systems used in neurosurgery, neuromonitoring, neurotrauma, and related critical care. In the United States, Integra is a leading provider of surgical instruments to hospitals, surgery centers and alternate care sites, including physician and dental offices. Founded in 1989 and headquartered in Plainsboro, New Jersey, Integra employs more than 4,000 people worldwide and generates annual revenues in excess of \$1 billion.

## Challenge

Increase available bandwidth utilization to improve application performance and support an expanding cloud strategy with greater flexibility and cost efficiency

## Solution

Deploy the EdgeConnect SD-WAN edge platform at 31 facilities worldwide, bonding existing MPLS and broadband links at each site, and implementing the optional Unity Boost WAN optimization performance pack to accelerate key applications and global file transfers

## Results

- Increased available bandwidth by 50 – 75 percent
- Reduced WAN traffic by approximately 40 TB through compression and deduplication
- Improved network uptime with sub-second failover, eliminating periodic downtime of 1 – 2 minutes
- Accelerated application performance and large file transfers worldwide
- Simplified WAN edge administration and gained greater insights for planning and troubleshooting
- Enabled business to advance its cloud strategy without bandwidth constraints



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