

National leader in mammography services accelerates access to life-critical scans

Solis Mammography transmits a petabyte of data annually with assured high performance and reliability thanks to the Unity EdgeConnect SD-WAN solution

Since its inception three decades ago, Solis Mammography has been focused on one thing: providing women with expert imaging services to achieve and maintain optimal health. Central to this are the 2D and 3D mammograms imaged during each visit. These images are large—each 500 MB or more—and stored in a central Picture Archiving and Communication System (PACS). For every patient visit, five years of historical scans are sent from the PACS to local imaging centers where radiologists can compare them with newly scanned images to identify any abnormalities. Combined with hundreds of thousands of annual scans, Solis pushes more than a petabyte of data across its wide area network each year.





50%+ INCREASE IN APPLICATION PERFORMANCE



LOWERED COSTS BY 40% PER YEAR



2X INCREASE IN BANDWIDTH



The problem was that the company's legacy meshed WAN was very slow. Duleep Wikramanayake, the company's CIO, explains, "We prefetch the PACS images every night for all the patients scheduled the next day. However, those prefetch windows were running 12 or 13 hours. Radiologists would arrive in the morning and we'd still be prefetching, so they had to wait to do their readings."



To light up a new site with MPLS can typically take 90 to 100 days. Now, we can do it in about two weeks. All we do is order two broadband links, put in EdgeConnect, and lo and behold we're up and running.

Duleep Wikramanayake,
Chief Information Officer, Solis Mammography

## Unity EdgeConnect transforms this nationwide WAN

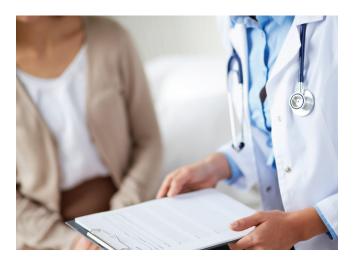
To address his network performance problems, Wikramanayake researched every major SD-WAN player and decided to test Silver Peak. "One of the main reasons we went with Silver Peak was that they offered a good ROI," he says. "None of the other SD-WAN vendors could produce an attractive ROI. I've run the numbers more than once, and Silver Peak can double our available bandwidth with a mix of MPLS and broadband while bringing costs down by about 40 percent."

The test site was an imaging center in Texas with particularly difficult connectivity problems. Not only did prefetching images take an eternity, but the staff couldn't even use the company's VoIP system, and resorted to using their personal cell phones.

Working with Silver Peak, Wikramanayake installed two <u>Unity EdgeConnect</u><sup>™</sup> appliances, one in the Solis data center and the other at the Texas site terminated with two broadband circuits. They bonded the two links and implemented <u>Unity Boost</u><sup>™</sup>, which provides full-featured WAN optimization to accelerate transmission of the PACS images over long distances. The Silver Peak team also created a separate overlay for VoIP to improve voice service quality. "Suddenly, instead of 13 hours to prefetch images, it only took four and a half hours," Wikramanayake says. "The staff could actually use our phone system. That's when we realized Silver Peak was for real."

Wikramanayake has since deployed EdgeConnect at 15 centers, and is in the process of completing deployment to all 53 Solis imaging centers. The ease and flexibility of deploying EdgeConnect allows Wikramanayake to rollout SD-WAN in phases, augmenting his existing MPLS network by bonding new QoS-enabled broadband services to maximize performance, bandwidth utilization, and network reliability.

Wikramanayake says application performance has improved across the board by at least 50 percent since building an SD-WAN with EdgeConnect.



# Increased performance and business agility

Today, the WAN is no longer an impediment to the business. Using <u>Unity Orchestrator™</u>, Wikramanayake can see exactly how traffic is flowing across the WAN, as well as confirm that prefetching completes well before the start of the business day and that images arrive at their destinations intact.

"One of the things we see through Orchestrator is that our integrated Unity Boost WAN optimization does a phenomenal job minimizing latency," Wikramanayake points out. As Solis Mammography continues to grow, opening new imaging centers and strategically acquiring complementary businesses, EdgeConnect enables Wikramanayake to bring up new sites quickly. "To light up a new site with MPLS can typically take 90 to 100 days," he advises. "Now, it only takes about two weeks. All we do is order two broadband links, put in EdgeConnect, and lo and behold we're up and running."

With the lower cost of broadband compared to MPLS, combined with the assured quality of service enabled by EdgeConnect, Wikramanayake anticipates that all new sites will be internet-only. Moreover, as MPLS contracts end, he foresees gradually retiring MPLS altogether. "We have already seen cost savings by bringing in high-speed broadband, while continuing to use MPLS," he reports. "As we replace MPLS with SLA-based internet circuits, our ROI will improve even more."

Wikramanayake concludes, "With Silver Peak, we've improved application performance, gained more bandwidth, improved our time to market, and saved money. And we haven't had to throw anything out to get where we are."

For more information on Silver Peak and our solutions, please visit: <u>silver-peak.com</u>

#### Customer

<u>Solis Mammography</u> is a national leader in mammography and imaging services, with 53 patient service centers across the U.S. The company completes more than 700,000 procedures per year, including screening and 3D diagnostic mammography, computer-aided detection, breast ultrasound, stereotactic biopsy, and ultrasound-guided biopsy.

### Challenge

Improve the speed of transmitting large medical images to and from patient service centers, while reducing WAN costs and improving agility to rapidly bring up new centers

#### Solution

Deploy EdgeConnect SD-WAN appliances in the primary data center and nationwide branches, bonding MPLS and QoS-enabled broadband circuits, and implementing Unity Boost to accelerate the transmission of critical PACS images across the WAN to provide exceptional patient care

#### Results

- Reduced nightly image prefetch times from 13 hours to 4.5 hours
- Increased application performance by 50 percent or more with enhanced network resilience
- Accelerated new site deployment from up to 100 days to about 2 weeks
- Doubled available bandwidth while lowering costs by 40 percent



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