

**INDUSTRY**

Healthcare, cancer research

HEADQUARTERS

Houston, TX

NUMBER OF EMPLOYEES

20,000 people, including more than 1,600 faculty members

WEBSITEwww.mdanderson.org**CHALLENGES**

- Inflexible legacy networks could not keep up with critical applications, especially as remote sites were added
- COVID-19 forced many employees to quickly set up home offices
- Network issues slowed performance for radiologists, who must analyze bandwidth-hungry images quickly

BENEFITS

- Automation, visibility and ZTP make it simple to connect new office locations to the corporate network
- Faculty and staff can easily set up their own SD-WAN service at home, and have the same experience working offsite as they would onsite
- Hundreds of radiologists across the country have the network resources to collaborate seamlessly, improving patient care

Keeping Critical Patients Safe and Treated Using SD-WAN

MD Anderson is an extension of the University of Texas located in Houston, TX. It is both a degree-granting academic institution and the world's leading comprehensive cancer treatment and research center. With faculty and staff working in more than 25 buildings in Houston and many locations around Texas, MD Anderson is one of the largest cancer centers in the world.

Already a VMware customer, MD Anderson began working with VMware networking solutions in 2019. At that time, they had multiple branches connected with commodity broadband and inflexible legacy Multiprotocol Label Switching (MPLS). Turning up a new site was a lengthy and time-consuming process. Many sites struggled with poor application performance, particularly when using traditional virtual private network (VPN) connectivity over broadband.

Radiology was also an important driver for better connectivity. Radiology image files, for example CT scans and MRI images, are large and must be transmitted accurately and quickly—one glitch and the entire image has to be re-transmitted. With no application awareness or per-application quality of service (QoS), radiologists could not keep up with analyzing bandwidth-intensive image files in a timely manner—a key metric of their day-to-day job performance.

MD Anderson needed a better solution and decided that software-defined wide area network (SD-WAN) was the most promising technology to fix its issues.

Choosing VMware SD-WAN

The VMware SD-WAN™ by VeloCloud® rollout occurred over the summer of 2019 to support more than 200 remote offices. With VMware SD-WAN, physicians were able to increase the number of scans per day, consistently increasing diagnostic efficiency for their critical patients. This not only allowed patients to get information faster, it also decreased the hospital's time to billing. MD Anderson now sees increased resiliency and security with a flexible and robust network infrastructure which allows hundreds of radiologists across the country to seamlessly collaborate.

VMware SD-WAN introduced automation and visibility to satellite offices, allowing fast and efficient deployment. Using zero touch provisioning (ZTP), remote office workers can install the VMware SD-WAN Edge themselves. The device automatically connects to the cloud-based central management tool, the VMware SD-WAN Orchestrator. This immediately connects the physician, radiologist or staff worker to the corporate network. Using the VMware SD-WAN Orchestrator, network managers can see the individual VMware SD-WAN Edges activated and can troubleshoot issues from MD Anderson's headquarters without traveling to other locations.

“We have partnered with VMware specifically for its SD-WAN solution. We deployed a combination of more than 700 VMware SD-WAN Edge 510 and VMware SD-WAN Edge 540 devices to extend the same level of user experience to the home as if our employees were working onsite. We are expanding our footprint to 1,000 devices as we continue expanding WFH initiatives in these difficult times of COVID-19. Thank you, Sanjay and the VMware team, for making our transition so seamless and successful.”

EMIL PATEL
UNIVERSITY OF TEXAS
MD ANDERSON CANCER CENTER



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COVID-19 forces rapid change

In March of 2020, COVID-19 brought new challenges to MD Anderson, particularly with protecting its highly vulnerable patients and employees. To limit exposure to the virus, many employees moved offsite to remote home offices. VMware SD-WAN was a natural fit to provide secure and enhanced connectivity to critical applications.

The VMware SD-WAN team received the call for help and responded in record time by delivering an initial 500 VMware SD-WAN Edge 510 devices in a matter of days. Because the situation was urgent, VMware sent hundreds of edge devices by priority shipping even before they received an official purchase order.

A request for additional VMware SD-WAN Edge devices soon followed, bringing the total to 1,000 devices. MD Anderson is currently distributing the edge appliances and helping employees turn them up. VMware SD-WAN has provided newfound network agility that will help employees, physicians, and patients provide and receive care safely today and in the future.

For more information about VMware SD-WAN, visit www.velocloud.com.

