

Healthcare IT upgrade

Hospital system reduces latency with fiber



Challenges

- Needed to connect multiple facilities to the cloud
- Lacked reliable, last-mile high-bandwidth connectivity to link hospitals
- Required low latency for applications and high data volumes

Solutions

- Fiber optic networking provides mission-critical bandwidth
- Lumen® MPLS IP VPN securely connects facilities to each other and the cloud
- Lumen® Cloud Connect to Amazon Web Services

Results

- Faster access to data and applications
- Ability to quickly transmit large data files
- Expansion of guest Internet access through Wi-Fi

Challenge

Reducing latency for medical imaging and applications

A Florida-based healthcare system knows that network performance is a critical factor. Connecting multiple facilities to each other and to the cloud requires enough bandwidth to handle large volumes of data. Connections must also secure patient information for compliance with privacy regulations.

Latency is a major problem. Important applications are provided via the cloud as a Software as a Service (SaaS) approach. Large medical imaging files need to be accessible while the patient is undergoing examination or treatment to avoid medical errors and provide quality patient care.

The system operates a large number of treatment centers. That means high-speed connectivity must be available between facilities and from any single facility to remote IT resources. The healthcare provider needed a partner who understood the life-and-death stakes of the mission and would put the proper resources and commitment behind it.

Solution

Fiber optic connectivity provides secure, fast bandwidth

The hospital system's two dozen local sites are now connected by Lumen MPLS IP VPN. In addition, five connections to its cloud resources are linked with IP-VPN with an additional connection to Amazon Web Services (AWS) achieved via Lumen Cloud Connect. This connectivity leverages an extensive fiber optic network in the area.

Because the fiber was already in the ground, the bandwidth was available without expensive up-front infrastructure costs. The healthcare provider manages the network with support from a dedicated account team at Lumen.

Lumen Solution Set

- Lumen Fiber optic network
- Lumen MPLS IP VPN
- Lumen Cloud Connect

Results and future plans

Removing latency and growing to meet patient needs

The organization's facilities now have smooth access to all applications and large data files transmit quickly without frustrating staff or delaying patient care. The additional secure bandwidth also allowed its hospitals to expand guest Internet access through Wi-Fi.

Lumen continues to work with IT staff to develop further efficiencies. For instance, the secure fiber network could eliminate the need to backhaul guest Internet access to the data center, allowing the hospital system to meet guest expectations more efficiently.

The hospital system's relationship with a trusted network advisor helps them stay ahead of the curve on technology's impact on patients. When it came time to add a new hospital, Lumen consulted on the site selection to provide access to the fiber ring in the region.

Future plans include adding professional IT services and additional network technologies such as SD-WAN to increase efficiency and better serve patients.