

# A Dual-path Ethernet LAN Gives the San Antonio Kidney Disease Center Powerful Connectivity *and* Control

## Measures of Success:

- High bandwidth to enable doctors in every location to access Electronic Health Records (EHRs) efficiently no matter how many people are using the system
- Dual-path configuration to eliminate single points of failure at clinics *and* the main data center
- Complete control over the network to “turn up” bandwidth, fix router issues and program dynamic Open Shortest Path First (OSPF) failovers
- Multi-level security to meet HIPAA requirements even if there’s a failover from the private network to the wide-open Internet

Founded in 1978, San Antonio Kidney Disease Center Physician Group P.L.L.C. (SAKDC) is one of the largest nephrology practices in Texas. The SAKDC network supports 30 physicians and about 100 employees working in 15 satellite clinics to serve thousands of patients across the area.

In addition to standard Internet traffic and email, SAKDC’s network carries the patient management system, scheduling, and the practice’s electronic health records (EHR).

Today, according to SAKDC IT Director Philip Moya, keeping all this information flowing “is just a non-issue.” But it *used* to be a major one.

## Trading T1s for fiber’s speed and scalability

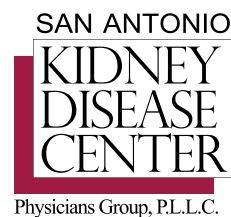
In 2013, connectivity between SAKDC locations relied on T1s. With bandwidth “choked” and doctors frustrated with slow access to EHR,

Moya solicited bids for a new solution.

When *all* bidders proposed Time Warner Cable Business Class (TWCBC) fiber as part of their solutions, Moya thought, “Hmmm, maybe I need to be looking at Time Warner Cable Business Class fiber.”

## Dual-path protection for clinics *and* the data center

The TWCBC fiber-rich network now forms the backbone for an Ethernet Private LAN where clinics are tied to the SAKDC main office (data center) via two paths: the primary connection is a fiber-optic circuit that links 13 remote clinics, with circuits ranging from 5 Mbps to 100 Mbps depending on each clinic’s needs. Secondary connections are provided by 10 x 1 DOCSIS (cable) modems. Should fiber connection go down at any location, the DOCSIS modem establishes a VPN link back to the data center.



## Customer Profile:

**Company:** San Antonio Kidney Disease Center Physicians Group, P.L.L.C. (SAKDC)  
**Industry:** Healthcare  
**Services:** Ethernet Local Area Network, Dedicated Internet Access, Fiber PRI



Philip Moya, IT Director, SAKDC

***“Our Project Manager was critical to getting our network up and running fast. ...The support after the sale has been phenomenal. We’ve added a couple of new locations... and it’s been really easy”***

***—Philip Moya***

"We did not want one single point of failure at any of our sites," Moya explains. "It would have done no good to put fiber and cable modem at each of our clinics and to just have one connection here at the main office. So we were adamant about having two separate paths into the building. And [TWCBC] did that." The way the circuits are configured, Moya adds, it "would take two simultaneous 18-wheelers [hitting poles] in two different part of the city to take us out."

For symmetrical, high-bandwidth upload connectivity, Moya relies on a 20 Mbps Dedicated Internet Access (DIA) circuit from TWCBC. The TWCBC solution also includes Fiber PRI, an IP-enabled voice service delivered over TWCBC's fiber-rich network.

## A network structured to make HIPAA audits easy

Like all healthcare practices, SAKDC must comply with HIPAA privacy and security requirements. The configuration of the TWCBC solution is instrumental in supporting those efforts. Moya explains that "nobody else's data touches our network; our data doesn't touch anybody else's network. We backhaul all of our Internet access through our main site, which runs through our filters. [If we] have to failover off the private network onto the wide-open Internet, ...everything's encrypted through AES256 VPN tunnels." From a security standpoint, the SAKDC network is built to such a high standard that Moya says, "passing the 'Data in Motion' portion of a HIPAA audit... would be very easy."

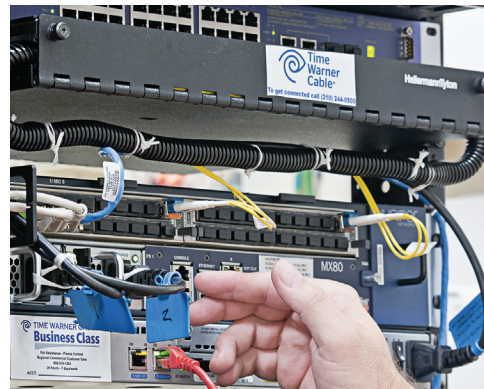
## A solution that lets SAKDC experts use their expertise

Moya and his expert IT team appreciate the control their TWCBC solution gives them.

"We know how to program routers and use routing protocols. We know how to program failover and failbacks," he says, adding that "when we have a problem at a site, I don't have to call Time Warner's NOC... I just log into the router and fix it myself."

This control also gives Moya options on how he leverages the network's scalability. Moya is thinking of using the existing New Braunfels office as the location for a second SAKDC data center. "It's the furthest clinic away (that has space to house a second data center) from where I'm sitting now," he says—a strategic advantage in terms of business continuity planning.

Moya knows that with dual-path, redundant fiber connectivity and the control he has over his network, bringing the new data center online will be easy: "All I've got to do is call [the TWCBC team]."



TWCBC fiber provides SAKDC with the bandwidth and flexibility to configure a network that meets the highest standards for security and privacy.

***"My boss gave me a couple of simple rules. He said, get better services than what have now, and pay less than what we're currently paying. And we did" [with Time Warner Cable]."***

***—Philip Moya***

### About Time Warner Cable Business Services

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