Freestanding ER Does IT Right to Save Lives and Dollars

Case Study: Surepoint Emergency Center

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For Surepoint Emergency Center, treating patients and saving lives is mission-critical. Their job is to ensure they are equipped, staffed, and prepared to treat any emergency medical condition that occurs in their community to patients of any age at any time of the day or night. From pregnancy emergencies to infant illness, sports injuries to heart attacks, Surepoint Emergency Center's doors and ambulance bays are open to infants, children, teenagers, adults, and the elderly 24/7/365. Their advanced treatment facility houses a full clinical laboratory, pharmacy, radiology department with CT scanner, x-ray and ultrasound equipment, telemetry cardiac monitoring, crash carts, defibrillators, and other emergency medical devices. Surepoint employs an around-the-clock team of ER physicians, nurses, and staff trained to provide life-saving care, operate the equipment, and read test results.

REQUIREMENTS

Surepoint Emergency Center required an IT-rich infrastructure with 24/7 network and inter-network connectivity to access medical programs, operate equipment, and communicate patient data across interfaced systems. Patient treatment was co-dependent on a physician's ability to access the cloud-based EMR, exchange bi-directional images and results with remote tele-radiology, and transfer up-to-the-minute test results across PACS, lab, pharmacy, and other systems. The infrastructure was further complicated by the high volume of rotating PRN (as needed) staff required to run the facility, and the essential need for HIPAA-compliant protection of patient data.

CHALLENGE

Surepoint Emergency Center had been open just under a year and had worked hard to build a name that residents in their Denton, Texas community could trust. They had exceptional physicians and care staff, a state-of-the-art facility, and efficiently designed operations. Everything was aligned for a solid future with the exception of one critical element – IT. The ER was experiencing severe connectivity issues, a problem that had progressively grown so serious it was risking the integrity of patient care.

"The delays were unbelievable," stated one Surepoint physican. "Access to our EMR with 100% uptime 24/7 is an essential function of our ability to assess, document, and store patient information. I've never seen such severe downtime and connection issues, yet continued calls to our initial IT vendor resulted in such extensive delays that at one point we even resorted to paper." Given the extensive planning Surepoint had pursued with their medical system vendors, all of their systems were interfaced. The systemic IT connectivity issues would cause one of those systems to drop, which in turn reverberated throughout the entire network.

Characteristics of the Problem Included:

+ EMR **connectivity** issues and downtime so severe as to require a backup paper system
+ Image **transfer limitations** that threatened the time-sensitive diagnosis of patients requiring imaging studies
+ Tele-radiology **access** issues blocking critical resource
+ **Disruptions** in interfaced PACS, lab, and pharmacy systems causing information exchange delays and data backlogs
+ Poorly designed **security architecture** threatening data or compliance breach
+ IT troubleshooting requiring **on-site appointment** with technician
+ Extensive **delays** in service request response and resolution

SUREPOINT EMERGENCY CENTER

CRITICAL NEEDS
24/7 access
Timely data transfer between integrated systems
Zero network downtime
Protection of patient data
Right-sized budget

SYSTEMS MANAGED
Internet connectivity
Email
Phone
Servers
Backup & Disaster Recovery
Security Policies
HIPAA compliance
Data protection & encryption

MEDICAL INTERFACES
EMR
Tele-radiology
PACS
CT/X-ray/Ultrasound
Lab Interface
Pharmacy Interface
Nurse Call

CUSTOMER CASE STUDY TXSG provides mission-critical IT Managed Services to Freestanding Emergency Centers.

Texas Systems Group | 512.249.2000

Surepoint's IT Department is right-sized for their business

Surepoint Emergency Center vetted their initial IT vendor with the utmost attention to detail. They called former clients, got references, and had extensive planning meetings before building out their Freestanding Emergency Center (FEC).

But at the end of the day, their IT vendor wasn't...

big enough
to handle their 24/7 access requirement,

deep enough
to handle the complexity of creating interconnected systems, or

specialized enough
to understand the nuanced medical systems and critical healthcare-specific security requirements.

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EXPERIENCE

Surepoint engaged Texas Systems Group (TXSG) to reengineer their deficient infrastructure. "The relief was immediate," stated Michelle Newsom, Surepoint's Vice President of Operations. "On Day 1, they created a remote fix that not only provided us an immediate connectivity solution, but also allowed us to sever ties with our previous vendor the same day." Texas Systems Group prioritized the creation of a solution for Surepoint's urgent pain point, then gave them immediate access to the TXSG Support Desk. From that day forward, all Surepoint staff had access to the Texas Systems Group IT Support Desk, and they could call one number for any IT-related problem. "The tech support team at TXSG is extremely knowledgeable; they operate at a higher level that I am used to dealing with from a tech standpoint," stated Newsom. "When we call, we're not talking to someone who has to put in a ticket two to three layers deep. We're talking to someone who is extremely friendly and willing to dedicate whatever it takes to investigate the problem to get a fix. And they understand healthcare – it's invaluable for us to be able to speak to a technician who understands the differing requirements of a call from a rad tech versus a call from the ER nurse. Further, I think that together the conversations are allowing for system designs and solutions that are better than we could have designed from the top down. When the IT support team speaks peer-to-peer with our medical staff, these guys are creating collaborative, long-term, orchestrated solutions."

APPROACH

Texas Systems Group's highly knowledgeable and committed technical team worked collaboratively to design an immediate remote solution for Surepoint's most critical problem – access to treat their patients. They then set up same-day access to the TSXG Support Desk and began troubleshooting 100% of the company's IT concerns. Texas Systems Group then implemented their thoughtful, regimented approach to permanently resolve the network issues, creating specific strategic and tactical plans prioritized around Surepoint's needs. TXSG mapped and re-designed the infrastructure requirements, creating systems for automated management and maintenance as well as backup and disaster recovery. They then identified technology risks, created systems that eliminated common reactive issues, standardized processes, and worked with Surepoint's VP of Operations on a long-term plan to ensure consistent, predictable service. Subsequently, TXSG assessed security risks and created security policies, including awareness training and alert detection systems. Customized programs were installed to handle threats, web and email filtering, virus, malware, and spam protection, data encryption, and automated monthly internal and external vulnerability scans. Texas Systems Group is currently planning Surepoint's first quarterly technology business review, where they will solidify their strategic plan, set the technology budget, and review critical IT risk management needs long-term.

RESULTS

Texas Systems Group successfully designed a proven 24x7 IT Managed Service solution for Surepoint's mission-critical IT emergency. Their regimented process planning and systems mapping enabled them to design and deliver a turnkey IT Department solution that managed risk, downtime, and cost. TXSG's experienced understanding of healthcare - providing BrightStar IT Managed Services to over 15 FECs across Texas - gave Surepoint access to technicians who were able to create a customized, strategic infrastructure that not only resolved immediate needs, but optimized a system that will ultimately provide them with a core competency and strategic advantage.

CRITICAL IMPACT

+ Created an emergency fix on Day 1 to resolve immediate and critical access issue
+ Allowed client to instantly cut ties with former IT vendor with no loss of service
+ Provided single point of contact for any IT-related issue 24/7
+ Gave all employees direct access to high-level IT technicians who understood both the medical systems as well as the overall network, allowing for highly efficient troubleshooting
+ Achieved "Always On" systems access, ensuring ER's ability to provide 24/7 care
+ Eliminated patient backlogs, allowing for average wait times under 5 minutes
+ Designed new architecture to ensure fluid integration and cross-communication between medical systems
+ Implemented intense risk-reduction strategy through security policies, filters, threat detection and blocking, and HIPAA-compliant patient data protection
+ Allowed for pricing by workstation instead of number of employees, creating a more aligned approach to pricing for Freestanding Emergency Centers that require a breadth of PRN resources