Case Study

Healthcare System Unified Communications and Collaboration Solution

Client

A large healthcare network

Client is a healthcare system with physicians' practices and hospitals throughout Ohio and Kentucky. It is the largest health system in Ohio and the fourth-largest employer in Ohio. With $5.6 billion in assets and growing, this health system employs over 33,000 employees in more than 100 organizations – including 23 hospitals.

Challenge	CBTS solution	Results
• Large, multi-location healthcare system requires a unified communications solution that will streamline its existing operations and also scale. • Client lacks internal IT resources to design, plan, and execute its desired move toward a unified communications system.	• CBTS designed and implemented a Cisco-based unified communications solution that leverages the full suite of collaboration technology. • Solutions include Cisco Unified Communications Manager, CER Emergency Responder, teleconferencing, and third-party application integration.	• CBTS now manages 100% of client's voice systems - both legacy and new environments - providing client's IT staff with much-needed bandwidth. • Solution delivers improved quality of service and lower operational costs to the client, now having the infrastructure in place to consolidate existing systems and easily integrate new acquisitions.

Business Challenge

Client's long-term goal is to build a consolidated unified communications system that streamlines its existing operations, and that will support adding new locations and solve the following business challenges:

- Client has made several acquisitions, and consequently is managing disparate legacy telephony equipment and multiple PBX vendors in its different hospital and practice locations. Client needs a holistic strategy that will allow it to upgrade all locations to a single Voice over IP (VoIP) system in a systematic way.
- Client operates in a heavily regulated environment and requires zero down time. Facilities must be up and running to provide primary care 24x7x365.
- Client uses many third-party applications to help nurses and physicians deliver care; these applications must be integrated with client's core communications infrastructure.
- Client lacks internal IT resources to design, plan, and execute its desired move toward a unified communications system. Client relies on IT staff to manage mission-critical projects instead of daily IT operations.

Client needs a strong technology partner with the expertise to support its legacy equipment across multiple locations in the short term, and simultaneously integrate a unified communications system to support its future needs.

CBTS Solution

Client engaged CBTS that holds prestigious certifications with several vendors including Cisco, which was ultimately the chosen platform provider. CBTS has more than 190 engineers who can migrate, build, design, maintain, and support Cisco technology. CBTS implemented the following solutions:

- **Design, build, and install of Cisco Unified Communications Manager (CallManager):** Solution provides reliable, secure, scalable, and manageable call control and session management. With integrated collaboration infrastructure for voice and video calling, messaging, and mobility.
- **Monitoring and management of the organization's telephony network:** CBTS Managed Services group manages and monitors the client's entire telephony network from our Enterprise Network Operations Center (ENOC), providing immediate response to any alarms within the system. CBTS provides telephony support for over 100 locations, including IVRs and PBX programming, which enables our client's IT staff to focus on their key priorities. CBTS trains users and solves any operational issues that may surface. Utilizing CBTS Managed Services allows the health network to remain very nimble as the needs of the business change. In addition, client never has to worry about training or turnover among the staff supporting its voice network – the client always has expert staff in place, trained on the latest technologies.
- **Support staff:** At any given time CBTS has up to 40 full-time staff supporting client's voice initiatives - from help desk support all the way to complex VMware work. As special projects come up, the health network also relies on up to 15 CBTS expert project managers who are well-versed in the health system's IT environment.
- **Managing legacy voice equipment and upgrading to new UC equipment:** CBTS manages the existing legacy voice equipment from multiple providers. As the health network upgrades to VoIP equipment at each location, CBTS manages the migration.

CBTS Solution (continued)

- **Implementing TelePresence Video Conferencing:** When CBTS began supporting the telephony network, we also designed and implemented a TelePresence solution to enable the health system to conduct teleconferences across acute care facilities. Initially, 50 units were deployed. Following a successful launch, client eventually expanded the program and continues adding new units at additional facilities.
- **CER Emergency Responder:** Enhances the existing emergency 9-1-1 functionality offered by Cisco's Unified Communications Manager. It ensures that emergency calls are sent to the appropriate Public Safety Answering Point (PSAP) for the caller's location, and that the PSAP can identify the caller's location and return the call if necessary. In addition, the system automatically tracks and updates equipment moves and changes for the client.
- Many integration points with third-party collaboration applications.

Services/Products Used

The following software and hardware technologies are used in the customer environment:

- Unified Communications Manager
- Unified Communications Manager SME
- Unity Connections
- Unified Contact Center Express
- Emergency Responder
- UCS B Series Blade Servers
- UCS C Series Rackmount Servers
- TelePresence Management Server
- TelePresence Content Server
- Various handset models
- Various TelePresence units

Employees Deployed on the Project

CBTS has deployed two dozen employees including project managers, design architects, implementation and support engineers, and a managed services team to work with the client. CBTS also provides about 40 professional services consultants to help the client with various projects.

Results

CBTS worked jointly with client's staff to design and build a unique solution that maximizes its existing environment and allows for growth. CBTS implemented and supports the unified communications and collaboration platform, which allows client's existing IT staff to focus on mission-critical projects.