



# Case Study

## Hosted Enterprise Unified Communications

**Client:** [Kentucky Community and Technical College System \(KCTCS\)](#)



With 16 colleges and more than 80 campuses across Kentucky, KCTCS brings first-rate education to every corner of the state. KCTCS currently serves more than 80,000 students, making it the largest post-secondary education institution in Kentucky. It's easy to move from one college to another, and many courses are offered in the evening or online.

Challenge	CBTS solution	Results
<ul style="list-style-type: none"> <li>• Long distance charges were growing substantially.</li> </ul>	<ul style="list-style-type: none"> <li>• Single, state-wide solution based on CBTS technology.</li> </ul>	<ul style="list-style-type: none"> <li>• Significant cost savings from reduced long distance charges.</li> </ul>
<ul style="list-style-type: none"> <li>• No capital available for large infrastructure investments.</li> </ul>	<ul style="list-style-type: none"> <li>• Emergency notification service for student safety.</li> </ul>	<ul style="list-style-type: none"> <li>• State-of-the-art communications solution that surpassed expectations.</li> </ul>
<ul style="list-style-type: none"> <li>• Little use of modern collaboration technology.</li> </ul>	<ul style="list-style-type: none"> <li>• Designed and managed by CBTS.</li> </ul>	<ul style="list-style-type: none"> <li>• More predictable spending based on school budgets.</li> </ul>

### Challenge

In 2002, the CIO and IT Department for the Kentucky Community and Technical College System (KCTCS) were searching for a primary, experienced IT vendor to provide a unique and integrated solution for their diverse IP telephony needs. Those services included complete design, plan, install, and ongoing management of a VoIP IP telephony solution for every KCTCS college.

KCTCS understood the direction of the telecommunications industry, moving from PBX analog phones to the IP-based phones that use the Internet for making phone calls and much more. They believed that the managed service was the right approach to support their communications system.

Their goal was to install an innovative phone system that included Quality of Service (QoS), and the ability to integrate voice, video, and data at some point in the future. They aimed to reduce long-distance charges by placing all colleges on one network so that calls across the state would be local extensions. They also wanted this solution to be billed using a utility-based model where they would be charged on a monthly basis for each phone. This allowed KCTCS the option of reducing or eliminating upfront capital costs, and gave them the ability to determine the price, based on the number of phones installed and managed.

## CBTS solution

CBTS developed a state-wide solution that included hardware procurement of Cisco equipment and Managed Services that comprised:

- Design, Installation, Training, Monitoring, and Management of Cisco IP Phones
- Call Manager, Unity Messaging, and Voice Mail
- Transitioned schools from T-1 circuits to the KPEN statewide network and more recently onto CB SIP Services.
- Call Centers for Office Efficiency.
- Emergency Notification Service for Student Safety.
- Updated Dial-Plan Improvements

CBTS used a best-in-class approach to help KCTCS fully implement a comprehensive strategic solution for current and future IP Telephony requirements. The size of the installation (7,500+ users) also presented CBTS the opportunity to develop and implement cost reduction methods, while increasing quality standards at KCTCS. Several Cisco VoIP engineers at all levels, as well as security, wireless, data, and VDC consultants and technicians were utilized for the multi-year project.

Given the success of the voice implementation, KCTCS asked us to manage their data networks at all 16 colleges as well. The additional services implemented included:

- Strategic Design and Planning.
- Remote Network Monitoring and Management.
- Voice, Video, and Data solutions using Voice Over IP.
- Project Management and Quality Assurance.
- Complete Installation and Onsite Training.

Related projects in addition to the IP phones:

- Call Center Management
- Virtual Servers from Virtual Data Center (VDC)
- VPN Client Services
- Cisco Emergency Responder
- Call Detail Reporting
- Informacast

## Results

KCTCS has reduced costs for long-distance since all college-to-college calls across the state are on the network. Greatly reduced capital expenditures and installation of a state-of-the-art VoIP Phone and wireless system has, according to users, surpassed their expectations. KCTCS has also integrated Call Centers and Emergency Notification into the solution. As new facilities emerge, it is a simple utility model change to add voice and data services. This model is very predictive financially. KCTCS just needs to pay for what they use.

The contract was initiated in 2002 and extended twice. CBTS won a contract renewal in September 2012 that runs through 2020. The devices are maintained, upgraded, and replaced by CBTS as needed, and as they become end-of-service (EOS). CBTS is managing more than 7,500 handsets for the system and all infrastructures that support the IP Telephony solution.

CBTS is now a key IT partner with KCTCS with the unified goal of making education improve the employability and quality of life of Kentucky citizens.