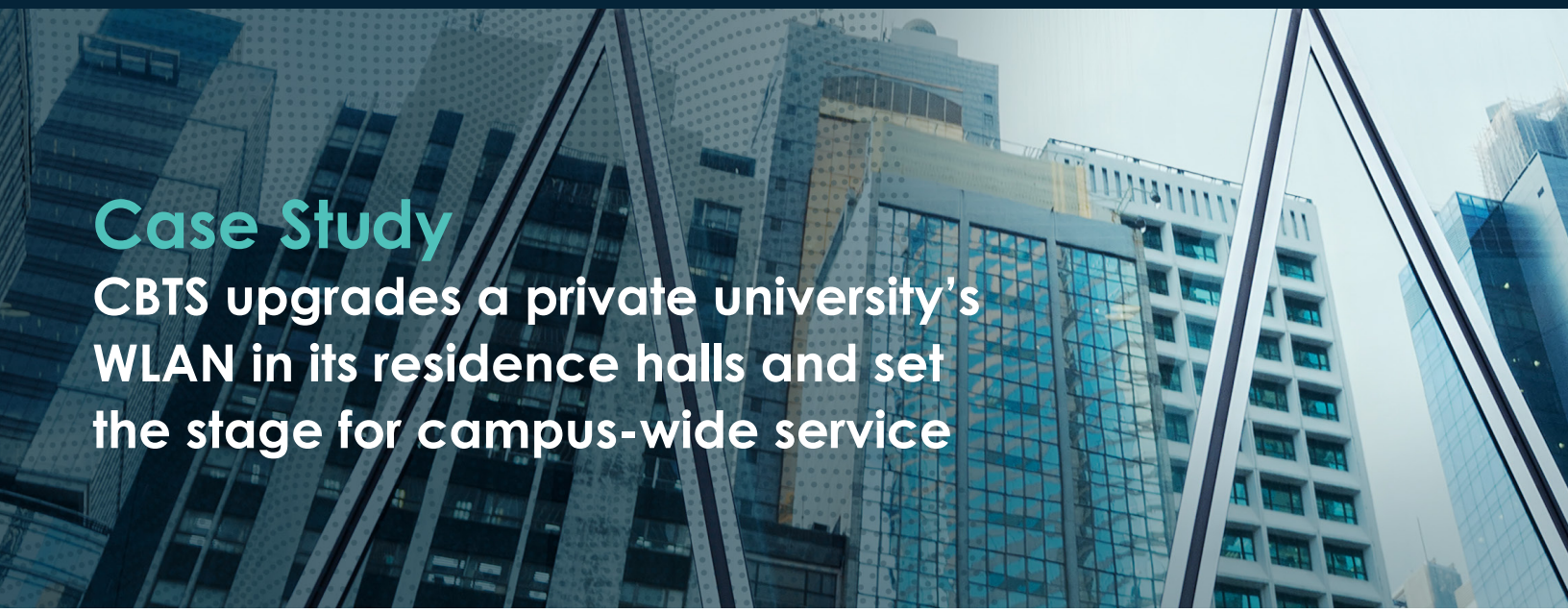

Case Study

CBTS upgrades a private university's WLAN in its residence halls and set the stage for campus-wide service

Client

Private Midwestern University

A private university in a large Midwestern city was upgrading Wi-Fi services in its residence halls. The school also required a flexible system design that allows the same Wi-Fi services to spread across the entire campus. The system must serve students' needs while also maintaining strict security protocols.

Challenge	CBTS solution	Results
• The university needed to upgrade wireless network in residence halls in order to meet the connectivity needs of their students. • Design a holistic system that can scale in order to allow students to access the same Wi-Fi across the university campus. • Maintain strict security, provide easy log-ins, and control user access.	• Partnership with Aruba Networks provides wireless and wired access in each student room. • Network switches use a common configuration to simplify management. • System design scales for growth. • Tight security segments and isolates users. • CBTS provides a managed service for user support and overall system support.	• Simplified log-ins means students can log in once and never have to log in again on that device. • University officials can easily flag unauthorized log-ins. • Guests can temporarily access the network with tighter controls that help bolster security. • 40 percent reduction in wired ports saves on hardware costs.

Challenge

The university needed to upgrade the wireless networks in its residence halls. The school required a holistic design that could be scaled into a campus-wide Wi-Fi system covering school classrooms and administrative areas.

The university also needed to maintain security, provide easy log-ins, and thwart would-be pranksters trying to distribute unauthorized content or otherwise manipulate the students' user experience.

Solution

CBTS engineers conferred with the university's IT staff and leadership to develop a system design that would accommodate residence halls while creating flexibility to expand the system across campus.

CBTS leveraged Aruba Networks, HPE best practices design methodology including RF design and security to produce the wireless design for the residence halls that is scalable for future needs.

The new WLAN has wireless access points in every other room, plus ethernet ports allowing students to use wired connections if they prefer. Network switches use a common configuration to simplify management.

The system provides robust security for every user session. Self-sponsored guest access allows temporary users to sign themselves on but limits their ability to access unauthorized areas of the network.

Our engineers configured the network to allow individual users to share their devices like Apple TV and Chrome Casts; but limit their ability to misuse the system and play pranks on fellow students.

CBTS also provides a managed service for user support and overall system support.

The economics of the upgrade were structured in the form of five annual payments covering cabling, hardware, implementation, and more.

Results

Students enjoy better Wi-Fi connections in their residence halls, including when they go from floor to floor.

Users are segmented and isolated to ensure they stay in authorized areas of the network.

Students can log in once at the beginning of the school year and never have to log in again as long as they keep using the same device. This configuration allows university officials to identify network users, making it easier to flag unauthorized log-ins. Guests can log in via a simple splash page and password that lasts one day. Tighter control of guess access also bolsters security.

The new network reduced the total wired ports in each room by 40 percent, saving on hardware purchase costs, maintenance, and repair. Standard configurations of network devices also simplified IT operations and support.

The economic component of the project allows predictable annual payments, spread over five years.

The university now has a trusted partner who helps manage their WLAN system and provides first-login support to users.