

CASE STUDY



Christian Academy
OF LOUISVILLE



OVERVIEW

Christian Academy School System is a private Christian school system with four campuses located in Louisville, Kentucky, and one campus in southern Indiana. The school system serves over 3000 students from pre-K to 12th grade and 500 employees with a high importance placed on digitized learning.

REQUIREMENTS

- A unified, indoor/outdoor wireless LAN that could be easily and centrally managed
- Ubiquitous Wi-Fi coverage and strong signal strength to deliver high data rates to thousands of current clients
- Higher capacity client support per AP
- A network that could grow to support exploding demand from increased number of students and devices

SOLUTION

- Deployed Ruckus ZoneFlex 802.11ac indoor access points and outdoor bridges to accommodate coverage for remote buildings.
- Installed the Ruckus ZoneDirector 3000 to manage access points
- Deployed ICX 7000 series switches for the underlying redundant infrastructure

BENEFITS

- Rolled out a solution to meet their 1:1 computing goal for the student body
- Satisfied students and faculty who can rely on their Wi-Fi because of the increase in bandwidth, capacity, and reliability of the Ruckus Wi-Fi solution
- Seamless coverage with indoor / outdoor access points
- Future-proofed the network to grow as the school system grows

RELIABLE INFRASTRUCTURE PROVIDES FOR DIGITIZED LEARNING

The greatest impact digital technology has on learning comes from the technology's underpinning role within a digitally-based school ecosystem; an ecosystem that is integrated, focused and which simultaneously addresses all the variables that enhance student learning. Digital learning is a must have in the modernization of school curriculums and long-term success of educators. School systems across the world are focusing on providing reliable Wi-Fi networks to prepare its students for the future.

CHALLENGE

Christian Academy School System is a private Christian school system with four campuses located in Louisville, Kentucky, and one campus in southern Indiana. The school system serves over 3000 students from pre-K to 12th grade and 500 employees with a high importance placed on digitized learning. Its legacy network was struggling to perform as the proliferation of devices started to hit the network. The amount of IT tickets that CASS was receiving created an overwhelming amount of work for the IT department. As Christian Academy began its first phase of its 1:1 program, the need for a reliable infrastructure was a must.

"We had a wireless solution in place that didn't work, we were in the first phases of our 1:1 adoption with over 800 devices going into the hands of students. Our wireless system wasn't working and we had lots of unhappy students and teachers," states at Christian Academy School System.

SOLUTION

After struggling with the failing legacy network, Christian Academy turned to partner Mirazon for help in finding a solution that would meet its requirements. The school needed to have as many students consistently on the wireless network as possible with the ability to achieve the highest throughput, best data rates and have the best user experience.

"The requirements had to support our 1:1 initiative. It had to provide enough capacity as well as density to meet the needs of our teachers and students," says Hough.

With the legacy network unable to handle the amount of students on the network as well as provide the needed coverage, Mirazon forkifted the install of the previous wireless system with Ruckus Wireless products.

"Within an hour we had set up all access points, configured the ZoneDirectors and had students on the reliable network where they were able to achieve all the goals for that day," states Justin Cottrell, systems engineer at Mirazon.

Ruckus Wireless, a part of Brocade, has been providing world-class Wi-Fi solutions to primary and secondary schools. Our platforms make managing the complexities of 1:1 programs and



BYOD a thing of the past. Mirazon deployed Ruckus' ZoneFlex R700, R710, R510 and R500 primarily indoors with outdoor bridges to accommodate coverage for remote buildings such as the football facility and tennis courts. These high performing access points have the patented BeamFlex set in the hardware which automatically adjusts the signals to the best performing path and steers around the interference and obstacles. This ensures the strongest signal, highest throughput and the least amount of interference.

Managing the access points is the Ruckus ZoneDirector. The ZoneDirector is designed for ease of use, high performance and low cost of ownership. It is capable of managing up to 500 APs and a great solution for Christian Academy who has a limited IT staff.

Brocade ICX 7000 series switches are used for the underlying redundant infrastructure. These switches feature flexible scalability and simplified management. Christian Academy started deploying ICX 7000 series switches to update the network infrastructure with 802.3at PoE compliant switches, gigabit technology and stacking in the closets to help with speed and management. The install went very smoothly taking place of its current vendor, Cisco. With these new ICX switches, Christian Academy can provide better throughput to students and staff being wired or wireless with the added 10 gig uplinks to the core and stacking speed.

Since the deployment, Christian Academy has seen solid coverage and reliability. There are very few IT tickets and students are able to learn without any interruption. Across all four campuses, the teachers provide a digitized learning environment and the Ruckus solution has allowed them seamless coverage.

"Of all the technologies that we support here at Christian Academy, Ruckus Wireless consistently is the most reliable and stable. It's a true set it and forget it technology and it meets the needs of our students and employees every day," concludes Hough.

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ROB HOUGH

IT director, Christian Academy

