

Case Study

Industry: Education

Lake Highland Preparatory School

Project: New VoIP system

Major challenge: Lightning damage



The background.

Lake Highland Preparatory School (LHPS) is an independent college preparatory school that educates 2,082 students in grades Pre-K through 12. The school's 26-acre campus is located on Lake Highland in Orlando, FL.

Lightning strikes.

Florida is the lightning capital of the U.S., and every year the school's Toshiba Strata voice equipment and copper cabling system suffered damage and downtime due to lightning.

The school wanted to upgrade its phone system and needed it to be lightning-resistant, so it turned to Black Box. As an authorized Toshiba dealer for more than 25 years, Black Box had been doing the service and repairs on the LHPS system, and was familiar with the problem.

Carolyn Stewart, the technology manager for LHPS, wanted a robust, dependable VoIP system that would eliminate lightning-related downtime, enable future expansion, and be affordable. In addition, easy administration and warranty protection were considerations.

The recommended solution.

Black Box's General Manager Gary Abram, Sales Engineer Jim Murphy, and the Orlando team recommended a new Toshiba Strata VoIP communication system. This gave the school the cost savings they wanted, as well as flexibility for expansion and growth. It also gave Stewart the easy desktop management she wanted and a seven-year warranty.

The Black Box team also recommended connecting the new VoIP system over the school's existing fiber backbone, which had been used solely for its data network. This eliminated the conductive copper cabling between buildings and lightning-induced damage.

The fiber pathways have proved to be lightning proof.

"The primary goal of the system was to keep it live and eliminate the downtime," Murphy said. "Going with VoIP over fiber accomplished this goal campus-wide."

The new system encompasses the school's 12 buildings spread throughout the main campus, the middle-school campus one and a half miles away, and a business office across the street. It consists of 672 ports, including 129 IP phones, 182 digital telephones, and 48 analog phones.

Cost savings.

The Black Box team kept affordability in mind every step of the way. That's why they chose to migrate from an older Toshiba Strata system to a newer Strata system.

"Not only did the Toshiba system meet the school's goals," said Abram, "but by staying with Toshiba, we were able to migrate to the newer Toshiba platforms and reuse the digital telephones at a significant savings over buying an entirely new system."

They reused the 182 digital phones and some of the system cards for a cost savings of more than \$72,000. In addition, the new system has helped the school eliminate at least \$24,000 in lightning repair costs, and save nearly \$500 a month in unneeded phone lines.

"We were so pleased with the reliability of our older Toshiba system that we chose Toshiba again," Stewart said. "Our new system also gave us a very cost-effective migration path and the ability to continue expanding as the school grows."

Black Box delivered a lightning-resistant voice communications system that exceeded the school's goals. Since the system was installed in 2006, there have been no lightning-related service calls.

"Black Box has delivered on their promise of giving us a cost-effective system that is lightning-resistant and reliable, even in the most ferocious Florida summer weather. We're pleased with Black Box and continue to use them for system upgrades and maintenance."

Carolyn Stewart, Technology Manager, Lake Highland Preparatory School



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