

CHRIST THE KING CATHOLIC SCHOOL POL CASE STUDY



Institution: Christ the King Catholic School

Location: Tampa, Fla.

Industry / sector: Education

Partner: Qypsys

POL Benefits:

- **Cost reductions:** Fewer network components reduces TCO
- **Power consumption:** The lower power consumption of the POL network will reduce energy consumption
- **Scalability:** It's easy to add new users – the single OLT supports up to 14,336 devices
- **New services:** New services can be added as the staff, student body, and campus grows

Overview

Christ the King Catholic School, located in Tampa, Florida, was founded in 1949. The student body comprises over 500 children from Pre-Kindergarten through 8th grade. In 2011, Christ the King received the United States Department of Education's National Blue Ribbon School award for academic excellence.

The Challenge

Christ the King School was constructing a new classroom building. The school wanted to equip the building with a state-of-the-art network that it could eventually connect to the campus's church buildings and existing classroom buildings. The school believed that a faster, more robust network infrastructure would help them maintain their prestigious National Blue Ribbon School by providing their students with better learning resources. Christ the King, however, had to control the cost of the network deployment, while also deploying a system that could help them reduce energy and operating expenses.

The Solution

Qypsys, working closely with Christ the King's IT department, deployed and integrated the ARRIS Passive Optical LAN (POL) solution in Christ the King's new classroom building. As the installation progressed, Qypsys engineers provided training and full configuration assistance to the IT staff. The new PON network supplanted Christ the King's older, switch-based network architecture with a centralized Main Distribution Frame (MDF) that provides network coverage for the new building's two stories.

The installation comprised two stages. The first stage used the POL solution to connect classrooms and offices throughout the campus's new school building. The installation included the following components:

- 40 rack-mounted **ARRIS WT24004 ONTs**, high-density modular workgroup terminals that provide a full range of advanced data, IP voice, and IP video services over a converged all-optical local area network (LAN). Qypsys installed the ONTs in the building's main network closet, with 24 units dedicated to servicing the second floor and 16 units dedicated to servicing the first floor.
- One **ARRIS AXS1800 Optical Line Terminal (OLT)**, which was also installed in the building's main network closet. The OLT supports the complete set of ONTs that were installed in the main network closet.
- An **ARRIS AXSVision POL Management Server**, which provide the Qypsys IT team with real-time inventory and configuration synchronization of all network hardware and software; role-based access control, highly secure extensive activity logging, and tracking; and embedded software management of network elements.

The Qypsys team tied the POL infrastructure into Christ the King's existing network to ensure the older buildings on campus retained network connectivity during the POL installation. As configured, the rack-mounted ONTs provide Power over Ethernet (PoE) for all of the new building's access points and VoIP phones. All of the new building's wireless access points, VoIP phones, smartboards, and PC access currently run over the new network.

The second stage of the installation will address future network improvements. These include running single-mode fiber to the remaining buildings on campus and connecting them to the PON network with ONTs.

Benefits

The ARRIS POL solution allowed Christ the King to build out its new classroom building's network affordably. The POL solution's single-mode fiber backbone also has the advantage of future-proofing the campus's network against advances in POL technology, while providing the scalability the school needs to easily add new buildings to the network. Finally, the POL solution's fewer active components will help Christ the King reduce energy consumption and save money on operational expenses.

About ARRIS

ARRIS is a premier video and broadband technology company that transforms how service providers worldwide deliver entertainment and communications without boundaries. Its powerful end-to-end platforms enable service and content providers to improve the way people connect – with each other and with their favorite content. The Company's vision and expertise continue to drive the industry's innovations, as they have for more than 60 years. Headquartered north of Atlanta, in Suwanee, Georgia, ARRIS has R&D, sales and support centers throughout the world. For more information, visit <http://success.arrisi.com/pol>.

About Qypsys

Qypsys is committed to providing innovative infrastructure solutions and the deployment of advanced technologies. The company provides turnkey solutions for the distribution of voice, data, and video services across LAN, campus, and metro environments. As an ARRIS Solution Provider, Qypsys can leverage the power of the ARRIS Passive Optical LAN solution to converge disparate networks onto a secure, reliable fiber backbone. For more information, visit <http://www.qypsys.com/>.

"As the IT Director for Christ the King Catholic School (CKS), I was asked to find a network solution for our new classroom building that was both cost effective and state of the art. Since its completion nearly six months ago, the POL (Passive Optical Lan) system Qypsys installed for CKS has proven to be exactly what we were promised and continues to deliver a solid network infrastructure for our entire campus. In addition to managing our entire phone system and desktop computers, we have also put this infrastructure to the test by installing over 30 PoE (Power over Ethernet) wireless access devices. To date, we have had as many as 270 laptops, ipads, chromebooks, and other wireless handheld devices on the network at the same time without a problem.

Thanks to Qypsys, we got the state of the art solution we were looking for at an affordable price." — John Slavik, IT Director Christ the King Catholic School

