

# CASE STUDY



## Large Catholic School District Modernizes to IP Communication Across 160 Sites Using NVT Phybridge PoLRE® Technology

The Catholic School District oversees 160 Catholic schools and administrative buildings in its geographic region, supporting over 80,000 students with more than 5,000 teachers and support staff. The organization was relying on several outdated analog communications systems across the 160 locations that were end-of-life and becoming increasingly difficult and expensive to manage. The district wanted to modernize to IP and standardize communication across all sites to improve efficiency and gain access to modern collaboration features.

**Challenge:** Before the Catholic School District could move forward with the digital transformation project, it needed to address essential network readiness requirements. A CAT3 network infrastructure supported the current analog communication system. The organization was hesitant to rip-and-replace the existing and proven voice infrastructure due to concerns of high network costs, long deployment times, environmental concerns, and disruption to staff and students.

The school district was also challenged with connecting the new IP phones across large school environments, given the 328ft (100m) reach limitation of standard Power over Ethernet (PoE) switches. The customer also wanted to avoid the additional cost, complexity, and space needed to address IDF closet requirements. The customer required an innovative solution to enhance communication without disruption, complexity, or high costs.



**Solution:** The Catholic School District discovered NVT Phybridge and engaged with one of their Digital Transformation Consultants. After discussing the organization's modernization objectives and barriers, the customer believed they could achieve better outcomes using Modern LAN design principles and the PoLRE® (Power over Long Reach Ethernet) switch innovation. The NVT Phybridge PoLRE switch, with SmartPathPoE technology, delivers power and connectivity over any new or existing single-pair UTP infrastructure with up to 1,200ft (365m) reach – that's four-times farther than a standard PoE switch!

The Catholic School District was impressed with the proposal and wanted to test the technology in its environment. NVT Phybridge assisted the customer in organizing a no-obligation proof-of-concept to test the solution in one of its locations. After a few simple setup steps, the PoLRE switch transformed the existing and reliable voice infrastructure into a robust and secure IP backbone for the new communication system. Due to the success of the proof of concept, the customer was completely confident in the PoLRE solution and was ready to move forward with the IP modernization initiative.

**Result:** By leveraging Modern LAN principles and the NVT Phybridge PoLRE innovation, the Catholic School District significantly simplified and improved its digital transformation by reusing the existing and proven infrastructure. The organization deployed over 5,000 IP phones across the 160 schools and administrative buildings.

The customer took a proactive approach to find new and better ways to achieve its IP modernization objectives in a financially and socially responsible manner. The organization was able to create a physically separate, robust, and reliable voice network without risk or compromise thanks to the simplicity of the PoLRE solution. The customer was beyond satisfied, leveraging NVT Phybridge innovation to:

- Enhance communication across the school district to increase efficiency and collaboration
- Reduce infrastructure costs by approximately \$2 million, allocating more budget to ROI-driving IP devices and applications
- Leverage the existing CAT3 infrastructure to maintain a cyber secure, point-to-point network for IP voice; ensuring packets travel in order, on time, and without contention or loss
- Reduce IDF closet requirements by 80%
- Easily modernize across 160 locations thanks to the PoLRE switch's repeatable, predictable, and scalable deployment methodology
- Simplify network requirements to reduce the total deployment time by 70%. The organization was able to fully modernize a location in a few weeks, as opposed to months
- Eliminate disruption to staff and students to maintain safe and effective learning environments
- Ensure an environmentally responsible upgrade by reusing the existing infrastructure, preventing over 16 tons of e-waste

It's your turn! Let us help you save money, eliminate risk, and simplify IP modernization requirements with the CHARIoT series. Learn more at [www.nvtpybridge.com/chariotproducts/](http://www.nvtpybridge.com/chariotproducts/)

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