



**OPEN OPTIONS®**  
ACCESS TECHNOLOGY



## FAST FACTS

### Customer

Littleton Public Schools

### Technology Partners

Open Options Access Control

Mercury Security

3X Logic

Bosch

### Industry

Education K-12

### Geography

Colorado

## Littleton Public Schools

Littleton Public School District – or more commonly known as LPS – is located just 10 miles outside the bustling downtown Denver, and serves several communities within the southern Denver metropolitan area. LPS is the fifteenth largest school district in Colorado, operating three high schools, four middle schools, 13 elementary schools, a preschool, two charter schools, and several alternative programs that span over 29 miles.

The district is responsible for more than 15,000 students day-to-day and employs over 2,500 faculty and staff. Managing security and access for this amount of people can be a challenge – especially given all other security factors campuses face – but the LPS campuses are also open for use within the Littleton community.

“Schools are often not only educational facilities, but also centerpieces of the community,” said Guy Grace, Director of Security and Emergency Planning for LPS. “For fifteen hours a day, a significant part of our community is in our schools for learning, extracurricular activities, or community use, so it is crucial we get the security right.”

### PoE Cabling for System Expansion

“In the past, there were significant challenges that arose when the school district deployed security technology,” said Grace. “Often, the older technology did not evolve with new threats, and as a result, became obsolete.”

LPS’s former access control provider was proprietary and was not PoE (Power over Ethernet) compatible. PoE describes the cabling that passes electrical power and data, allowing a single cable to provide both the data connection and electrical power to devices such as door controllers and IP security cameras. PoE infrastructure results in lower cost, greater flexibility with installation, and overall more functionality than traditional wiring. As a result, the school district is able to adjust to and decrease new vulnerabilities.

Grace and his staff were adamant about implementing technology that would provide an integrated approach to a safer school by utilizing PoE to ultimately achieve a full-fledged Physical Security Information Management, or PSIM, system. PSIM is a category of software designed to integrate multiple, unconnected security applications and devices and control them through one comprehensive user interface. Although DNA Fusion is not generally categorized as a PSIM system, it serves as the primary interface for all other systems to tie into.

“In wanting to bring this big vision to the school district, we looked at procedures and technologies that would enhance school security and improve the learning environment,” said Grace. “One of the most important tiers we wanted to meet was a complete installation of a PoE cabling infrastructure district-wide that would allow us to use non-proprietary systems, which helps us bring the best technology into the district.”

## LPS’s Vision for New Access Control Provider

As Grace began the vendor selection process for the upgrade, he looked at suppliers that were consistently evolving. This would allow the district to grow alongside their service providers as new features and technologies became available. “Our overall security goal is pretty simple,” said Grace. “We must have quality technology delivering quality results, because we cannot have a successful educational experience without safety and security well taken care of.”

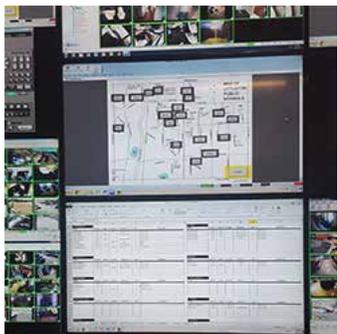
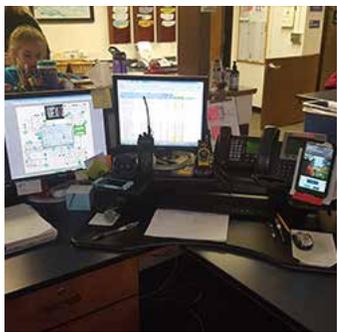
Grace and his team sought an access control provider that could integrate with their chosen technology providers and offer a user-friendly interface that allowed multiple operators to utilize the system. After vetting several vendors, LPS selected Open Options for the project. “We had specific visions of what the system must do, and Open Options was the only vendor able to meet that vision,” said Grace.

Open Options’ flagship access control platform, DNA Fusion, interfaces with a host of other systems and also has mobile and web applications. Open Options and Mercury Security have worked together for two decades to provide a true open architecture access control solution. Mercury Security is the leading open platform access control hardware provider with over 20 OEM partners, the most extensive feature set, and the world’s largest install base with over 3 million controllers. Multiple manufacturers support this hardware platform, which allows the end user a valuable choice in software. Because of Open Options’ commitment to open architecture and their numerous third-party technology integrations, Mercury Security named Open Options one of the company’s first Platinum Elite Partners.

The transition from LPS’s former access control solution to DNA Fusion began a few years ago, when LPS closed their campuses for the summer and began installing the Open Options infrastructure. During the transition, the older access control system continued to operate on its server in Information Technology Services, and will be shut down indefinitely as the remaining campuses are converted to DNA Fusion at the end of this May.

LPS also utilizes other elements of the DNA Fusion platform to enhance their security, including OpenDX, Open Options’ database exchange software, and their Fusion Web and Fusion Mobile applications. “OpenDX allows us to easily import data to help facilitate the large amount of users we have on the system,” said Grace. “Additionally, the web and mobile components of the software ensure we can access and manage security from almost anywhere – we receive alerts of open doors, forced entries, etc. straight to our mobile devices or remote desktops.”





Grace and his team found the flexibility of programming time schedules and access levels to be highly beneficial in daily operations across the district. Security differs from campus to campus; for instance, there are time schedules in place for specific doors that are manned by security officers at the high school campuses, but the elementary and middle schools remain locked throughout the day with the exception of student arrival and dismissal times.

Access levels vary by employee, with some having 24/7 access to all buildings while others only have access specific to the building they work in. "We do provide access cards to area law enforcement," said Grace. "In a lockdown situation, only police and certain security personnel have access for immediate entry."

## Open Platform & Customized Solution Leads to Interoperability

"Open Options' ability to customize the system for the users was huge," said Grace. "In addition, their willingness to work with other partners and technology was just as great."

Before selecting Open Options, LPS had already chosen 3xLOGIC as their video management provider. Open Options and 3xLOGIC worked together to create the drivers and processes that would allow the two to build the core of the access control system. There are a number of other technology integrations – including loss prevention, duress systems, intercom, and more – involved in giving LPS a complete security solution. All of these integrations work with one another and through DNA Fusion to provide a comprehensive solution.

Open Options also had to do some customization and development to ensure all facets of the integrated solution were seamless, and to provide LPS with the features and functionality needed to adequately monitor their security. This included redesigning the alarm automation component of DNA Fusion to accommodate the Bosch and Inovonics integration, as well as designing custom graphics maps to be used across the entire district. The graphics maps play a huge role in LPS's security solution, as access control, visitor management, cameras, and lockdown settings can all be accessed and managed through the maps. Extensive operator capabilities, such as the ability to control doors, manage time schedules, and check visitors entering the building, are also available through the maps.



A project this size simply cannot be done without quality integration partners. Colorado-based integrators Beacon Communications and Team Linx installed all the equipment and worked tirelessly with LPS and the technology manufacturers to ensure the systems were communicating properly with one another for maximum functionality. "Through our integrators, we were able to achieve exactly what we wanted our system to accomplish," said Grace.

LPS believes that a security system must be deployed in a manner that is customizable for the school and its daily operations that enhances the abilities of teachers to teach and students to learn. A security system must ultimately have the ability to be deployed and work efficiently around the clock for many different needs. With this in mind, LPS currently has 29 sites utilizing the DNA Fusion platform with plans to have over 150 operators district-wide. "We expect the system to evolve for the needs of the district for years to come," said Grace. "Security is never static, so the system must be proactive like the people that use it – we are glad to say we can count on Open Options and DNA Fusion for that."