

# CASE STUDY



## Phoenix Union High School District (PUHSD)

Phoenix, AZ

**ABOUT** The Phoenix Union High School District (PUHSD), one of the largest school districts in the US, consists of 20 schools housing 30,000+ students and employees. PUHSD determined it needed a comprehensive upgrade of the district's fire safety systems. Brian Gould of LVC, an authorized NOTIFIER Engineered Systems Distributor (ESD) in Phoenix, was selected to design and install a pilot system for Maryvale High School (MSH). If proven successful, it would be extended to the remaining nineteen schools within PUHSD.

**CHALLENGE** Identify a comprehensive and scalable fire safety system with centralized intelligence that networks across hundreds of buildings, with non-invasive installation and cost effective maintenance.

### NEEDS

- › Network scalability over hundreds of buildings with centralized intelligence
- › Systems that would not be affected by extreme weather patterns (lightning)
- › Fire safety system that does not require lifts for access or invasive maintenance

### BENEFITS

- › Reduced installation and maintenance costs for lower cost of ownership
- › Ideal for challenging structures
- › Networked across 220 acres of school district with single point of control
- › Programmable as standardized process, with simple push and reset buttons
- › Requires minimal operator training due to ease-of-use

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**We always program the system to disable specific things in buildings. Sometimes security guards have to do this, and we can always tell them how to push the ONE button they need to use.**

John Carrier, LVC,  
Project Supervisor/General Foreman



## SOLUTION

For the 10-building Maryvale High School, LVC chose the NOTIFIER ONYX® Series, integrated with intelligent aspirating smoke detection. Air sampling detection allows for highly accurate, early detection of fire or gas emergencies through ultrasonic sensing and advanced detection algorithms, which can differentiate between smoke/gas interference and object interference. Smoke interference triggers alarms, while solid object interference triggers alerts. This simple distinction allows facilities managers to coordinate appropriate actions.

Air sampling detectors are ideal for structures that are prone to damage by heavy installation or maintenance equipment. To address MHS' concerns for their newly refinished gym floors, LVC replaced existing old smoke detectors with air sampling detectors to eliminate use of heavy lifts. School officials also noted that flying basketballs routinely damaged current smoke detectors. Air sampling detectors are virtually invisible, easy to install and maintain. This greatly reduced cost of service and total cost of ownership for PUHSD. LVC replaced twelve smoke detectors with just two air sampling detectors, saving PUHSD 65% in installation costs.

LVC installed a NOTIFIER ONYXWorks® station at the control center, networked with nine (9) NFS2-3030 fire alarm control panels to integrate all 10 school buildings. Nine (9) Digital Voice Commands (DVCs) were added for targeted audio command at each location. This combination offered the most comprehensive solution that could be controlled at a central location.

ONYXWorks' easy-to-read visual display offers 24 programmable buttons for individual actions. When programmed by an expert ESD, it allows for intuitive, single button operations, even for minimally trained individuals. Issues are easily identified, located, and managed, ensuring fast action for maximum fire safety.

LVC networked all products using fiber optics to prevent damage or system failure from frequent desert lightning. With sophisticated installation, LVC delivered a comprehensive fire security system across a large number of structures, that is easy to oversee and cost effective to maintain. PUHSD rolled out the pilot MHS installation to the remaining schools within the district.

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**We are really pleased with this new fire alarm system. Every building is programmed the same so it is easier to maintain and train new hires on. OnyxWorks makes it much easier to take the right actions and fast. It was a very professional installation.**

Laymon Collins,  
Alarm Technician, PUHSD

## NOTIFIER

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