



## About the Company

Monterey Peninsula Unified School District (MPUSD) is on its way to becoming one of the finest public school systems in the country and aims to engage all students in deep learning that prepares them to solve the challenges of the 21st century — a vision that requires continuous improvement.

Established in 1961, the district is building innovative schools that offer dynamic learning opportunities and continues to focus on increasing student achievement and eliminating performance gaps.

Part of this effort was the recent passing of a \$213 million school facilities bond, which allows the public school system to provide critical repairs for today's modern classrooms.

[www.mpusd.com](http://www.mpusd.com)

## Background

Information technology is a critical component of modern classrooms, making continuity the primary concerns for Manuel Zamudio, the director of IT for MPUSD. This focus on ensuring no interruption to school operations became even more important during recent construction that was part of an upgrade to the district's virtual machine (VM) environment and its core network.

For MPUSD, the IT network spans more than 30 learning centers, schools, and academies in three cities. It supports critical applications like the schools' paperless, workflow management system used for all business forms. The network also enables in-classroom student and teacher devices, interactive televisions, and the phone and public announcement system.

"My top priorities are to ensure systems integration and to make sure the district has the business resources it needs to work efficiently," Zamudio said. "Implementing the Vertiv™ SmartRow™ solution was a critical step in making all that happen."

## Case Summary

**Location:** Centralized data center in Monterey, California

**Critical Need:** Working with an uninterruptible power supply (UPS) that was at least seven years old, the director of IT for MPUSD needed to upgrade his infrastructure for improved functionality and efficiency while being fiscally responsible. The upgrade needed to be completed prior to the start of the school year and with enough time to subsequently upgrade his VM environment.

### Vertiv Solution:

- Vertiv™ SmartRow™ integrated infrastructure solution
- Liebert® GXT4 UPS
- Liebert® PDX cooling system

### Results:

- Efficient deployment that met quoted timeline and aligned with allotted budget
- Improved energy efficiency and functionality to support maximum service life of UPS battery and other critical components
- Improved reliability for peace of mind
- Less time spent on system management and troubleshooting for ensured achievement of the district's service level agreement

*“We chose the Vertiv™ SmartRow™ solution with Liebert® power and cooling infrastructure because the system is built for performance. It becomes clear when you see it in action.”*

**— Manuel Zamudio, Director of IT, Monterey Peninsula Unified School District**

## Solution

Using a Vertiv competitor’s UPS that was more than seven years old, Zamudio started to lack confidence that his unit could properly support the district’s critical applications, especially during an important time of upgrades and construction. The system’s data regarding backup runtime had started to fluctuate, and in some cases, proved to be inaccurate. Additionally, the location and setup for the UPS system was less than ideal.

The existing unit was not enclosed in support of proper airflow, so the fans were often running and at higher speeds. The noise level became much more noticeable for nearby personnel and even impacted the effectiveness of troubleshooting when the IT team was working in the space.

Zamudio sought a total solution from a reputable brand that incorporated updated technology, which was essential to the district’s classroom modernization goals. He also needed infrastructure that would align with MPUSD’s focus on student and staff safety.

“We chose the Vertiv™ SmartRow™ solution with Liebert® power and cooling infrastructure because the system is built for performance,” Zamudio said. “It becomes clear when you see it in action.

“Having an all-in-one type of solution that included a fire suppression system and intelligent controls made the most sense when trying to maximize the return on the community’s tax dollars,” Zamudio added.

The SmartRow is specifically designed for efficient operation that reduces the wear and tear on components, which for MPUSD, meant less servicing and not having premature replacement costs. And because the infrastructure had to be operational prior to the start of the nearing school year, the integrated, single-row solution offered rapid deployment. It was able to be installed within the quoted six-week timeline even with some unexpected relocation of existing ductwork.

For MPUSD, the SmartRow gave the IT team more control to optimize the equipment’s operation and service life.

Using the advanced Liebert® iCOM™ controls, Zamudio was able to utilize the teamwork mode between his two computer room air conditioning (CRAC) units improving energy efficiency. He can also use the system’s monitoring software and web-based dashboard to ensure ongoing power and cooling efficiency.

The SmartRow didn’t just improve energy efficiency for the school district, it also improved employee efficiency through enhanced visibility.

MPUSD personnel were able to quickly access utilization data from the user-friendly liquid-crystal display which was particularly helpful during construction. Plus, having a window into the space housing the SmartRow, meant the IT team could easily see the functional status of the system via its color indicators without even entering the data center.

“I essentially have a service level agreement that requires I respond to incidents within 24 hours,” Zamudio said. “Depending on the severity of the issue, I must resolve them in as little as four hours with resolution not to exceed three business days. The Vertiv SmartRow solution has been hassle-free since it was installed, giving me the time I need to meet this SLA.”

