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Enterprise**

# Developing future-ready citizens

**Moreno Valley Unified School  
District (MVUSD) leverages  
distributed services architecture for  
next-generation teaching and learning**

Recognized for excellence in primary and secondary education, MVUSD provides 32,000 students with exceptional learning opportunities to help them grow into the next generation of business and civic innovators by supporting curriculum advances with mobile, Internet of Things (IoT), and other technologies using HPE Aruba Networking.

## Preparing every learner for a successful life

Empowering nearly 32,000 students to become tomorrow's leaders, California's MVUSD provides an equitable and interdisciplinary education. Comprised of 40 campuses and an online academy, MVUSD and its 5000 educators are dedicated to curriculum innovations that engage and motivate students.

"Our IT department supports schools that are diverse in multiple ways, ranging from curriculum advances to devices types," explained Juan Diaz, network manager for MVUSD. "With today's rapidly evolving classroom technology and connectivity demands, we require infrastructure that is robust and flexible enough to support every single student and teacher."

## Singular solution answers all needs

As its networking systems were aging, Moreno Valley determined a comprehensive refresh was necessary. Keen to adopt the latest infrastructure architecture and cloud-based management, as well as advanced hardware, Moreno Valley evaluated leading wired, wireless, and data center networking solutions.



**Industry:** Education

**Country:** United States

### Vision

Enable next-generation teaching and learning to provide an equitable and interdisciplinary education

### Strategy

Deploy AI-enabled, unified, secure, future-ready data center, wired, and wireless networks

### Outcomes

- Ensures every student has equitable connectivity access
- Supports IoT, streaming, and whatever comes next
- Slashes troubleshooting time by more than 60%

“We wanted an AI-enabled platform with natively integrated solutions that could provide us with unified solution, streamlined administration, simplified licensing, strong security, and management tools,” said Diaz. “After investigating solutions from multiple leading vendors, the only one that met all of our requirements was HPE Aruba Networking.”

### Networking ensures equitable access

For its wired infrastructure refresh, Moreno Valley selected the HPE Aruba Networking Data Center Networking (DCN) solution, anchored by CX data center switching. This enabled the district to engineer an always-on, robust, flexible backbone that delivers highly secure connectivity for servers, storage, and edge networking devices while reducing IT overhead.

To complement its HPE Aruba Networking DCN, Moreno Valley deployed CX access and aggregation switches for a smarter and more secure edge that connects tablets, laptops, 3D printers, and IoT-enabled operational systems, as well as guest devices used

by educators, students, and community members.

“Standardizing on HPE Aruba Networking CX Switching supplies us with faster, better connectivity that is easier to manage,” said Diaz. “It enables us to accommodate any device that needs access.”

Wireless networking is accomplished with a mixture of HPE Aruba Networking Wi-Fi 6 and 6E access points (APs) indoors and outdoors. “We’re deploying outdoor APs to ensure every student has equitable access during and after school,” Diaz said. “Also, if a teacher wants to move lessons outdoors on a beautiful day, they can do so while still accessing academic tools.”

### AI Ops reduces troubleshooting by 60%

For unified and streamlined management with advanced visibility across its DCN, wired, and wireless networks, Moreno Valley implemented AI-powered HPE Aruba Networking Central. It supplies cloud-based comprehensive artificial intelligence (AI Ops) for IT operations. The district also deployed HPE Aruba Networking

ClearPass, which provides unified zero trust and secure access service edge (SASE) cybersecurity.

With Moreno Valley’s lean IT staff managing such a large and heterogeneous device environment, HPE Aruba Networking Central has been a game changer, according to Diaz.

“Although we have fewer issues due to proactive AI Ops network management, when we do encounter a problem AI Insight turns troubleshooting from five hours or five days to five minutes or less,” he said. “On balance, with HPE Aruba Networking Central we’ve cut the time we spend resolving issues by at least 60%.”

In addition, Moreno Valley has gained significant cybersecurity automation and efficiency capabilities by adopting dynamic segmentation. It works in combination with ClearPass and the district’s CX infrastructure to assign connected devices to the proper wired switch port or wireless SSID on the fly while ensuring each device is granted network and application access based on the appropriate, policy-based, level of security.



No matter what type of mobile, IoT, or other connected devices our educators need to adopt, our HPE Aruba Networking infrastructure ensures we’re able to fulfill their requests.”

– Juan Diaz, Network Manager, Moreno Valley Unified School District



“Whenever someone connects a new device to our network, like when a vendor is conducting repairs, it’s automatically assigned the proper access, ensuring users can efficiently complete their work while we maintain a safe and secure environment,” said Diaz.

“With everything automated by ClearPass, our IT team can focus resources on higher-value projects, like working with teachers on adopting new technologies for their curriculum,” he added.

### **IoT-powered wish lists come true**

Most importantly, Moreno Valley’s new infrastructure enables teachers to turn their curriculum technology visions into reality. This includes supporting advanced CAD classes, new IoT-enabled makerspaces, and 3D printers with embedded cameras to view and capture time-lapse pictures of the project in progress for subsequent instruction.

“Having high performance connectivity gives our students hands-on opportunities to design the next generation of housing, cars, and many other products,” said Diaz. “The combination of our CAD program

and 3D printers enables students to translate the designs they create on screen into a physical object, which takes their education one step further.”

Another bandwidth-intensive utilization is Moreno Valley’s scholastic esports program. It contributes to the district’s commitment to a multidisciplinary STEAM education that encourages teachers and students to innovate. Among the multiple esports offerings are all-girls tournaments that encourage female participation in technology careers.

“Our HPE Aruba Networking hardware solutions supply the needed throughput to support real-time gaming with streaming video,” Diaz said. “In addition, our management and security tools enable us to deliver optimized and secure connectivity to every esports-related device.”

### **Making facilities smarter and more sustainable**

Operationally, Moreno Valley’s new infrastructure enables making facilities smarter with connected access control, lighting, security cameras, and HVAC systems. “With HPE Aruba Networking

ClearPass automatically assigning operational devices to a separate network, it enables our facilities to be smarter while keeping sensitive data secure,” said Diaz.

From a sustainability perspective, having smarter facilities enables taking a holistic approach to decarbonization, which has garnered Moreno Valley a number of regional and national awards. Network-related benefits range from supporting the district’s significant fleet of electric buses to optimizing the use of heating, ventilation, air conditioning, irrigation, and other energy-using systems, like Wi-Fi APs.

“With our intelligent infrastructure we can turn on and off advanced features, as needed, to optimize power consumption,” Diaz said. “For example, an esports tournament in our new Moreno Valley High School Performing Arts Center may have advanced Wi-Fi requirements, which can be enabled during the tournament and disabled when it’s finished.”



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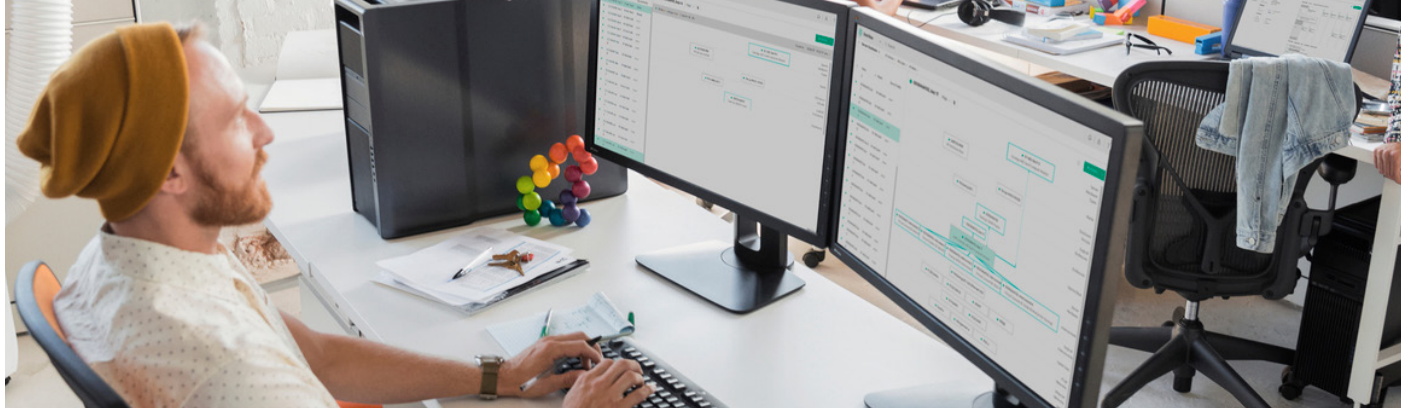
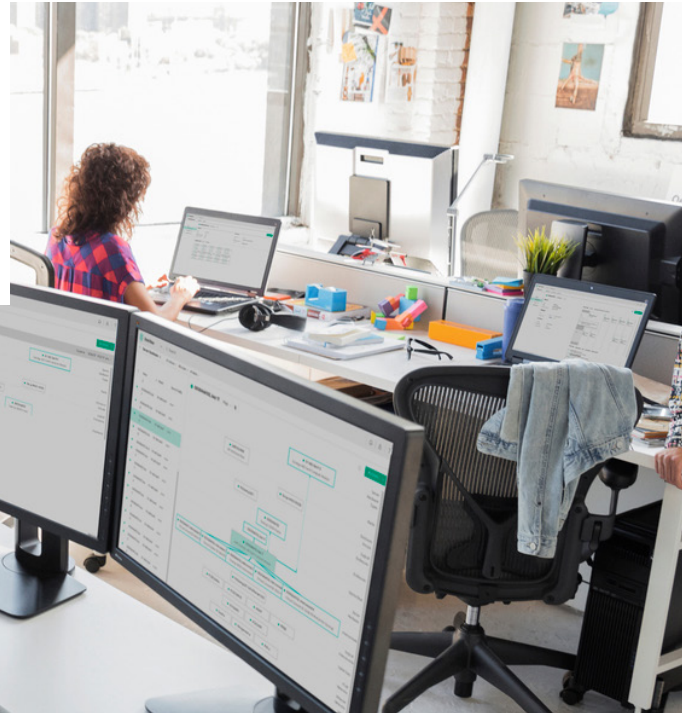
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## More time for the next big thing

Moving forward, Moreno Valley plans to expand its infrastructure to enhance scholastic experiences. This includes deploying HPE Aruba Networking User Experience Insight (UXI), an AI-powered tool that permits uncovering Wi-Fi degradations proactively before they impact teachers and learners.

Overall, Moreno Valley expects to benefit from the capabilities of its future-proof infrastructure in ways that educators and students have only begun to imagine.

"Since deploying our HPE Aruba Networking solution, the problem reports have been so few and far between that we've spent considerably less time on management and troubleshooting, which has provided us with significantly more time to plan for the next big thing," said Diaz.

"No matter what type of mobile, IoT, or other connected devices our educators need to adopt, we'll be able to fulfill their requests while keeping our students safe," Diaz added.

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## Solution

### Hardware

- HPE Aruba Networking core and data center switches
- HPE Aruba Networking access switches
- HPE Aruba Networking access points

### Software

- HPE Aruba Networking Central
- HPE Aruba Networking ClearPass
- HPE Aruba Networking User Experience Insight (UXI)



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