



### Customer Profile

KEMET Electronics Corporation is a global leading supplier of high-end electronic components. Established in 1919 and headquartered in Fort Lauderdale, Florida, its global footprint includes 45 manufacturing and sales facilities and approximately 12,000 employees located in 22 countries in the Americas, Asia and Europe.

Vertical: Manufacturing  
 Location: Fort Lauderdale, Florida, United States  
 Customer size: 12,000 employees in 22 countries

### Use Case

Modernize wired and wireless infrastructure to eliminate historical bottlenecks and facilitate the adoption of IoT and IIoT-enabled Industry 4.0 automation throughout manufacturing and sales facilities worldwide.

### REQUIREMENTS

- Centrally manage and secure high-performance Wi-Fi across 22 countries worldwide
- Support manufacturing Industry 4.0, including mobility, IoT and IIoT
- Adopt an intuitive technology innovation ecosystem with AI-enabled tools

### SOLUTION

- Aruba Indoor APs, including Wi-Fi CERTIFIED 6 APs
- Aruba 2930M Switch Series
- Aruba Central for cloud-based network management
- Aruba ClearPass for network access control

### OUTCOMES

- Recovered millions of dollars in profitability by reducing manufacturing defects and inventory bottlenecks due to legacy systems
- Cut Wi-Fi deployment times from days to hours and enabled zero-touch deployments across the globe
- Mobilized manufacturing and sales facilities spanning millions of square feet worldwide
- Established high-quality collaboration across a global footprint via Skype for Business, Teams and IP telephony
- Gained resilient, future-ready infrastructure with the intelligence, scalability and intuitive tool sets to meet emerging needs

Strong demand for its components kept KEMET Electronics Corporation's global manufacturing and sales facilities running at full capacity, but further growth and operational innovation had stalled.

"We determined our aging technology infrastructure was the bottleneck," explains George Hurtado, Director of Global IT Infrastructure for the Fort Lauderdale, Florida-based enterprise with 45 manufacturing and sales facilities spread across 22 countries. "Our legacy system wasn't scalable, resilient or sufficiently secure. We clearly needed a significant refresh."

### Aruba Central Answers the Needs

Given its expansive global footprint, KEMET sought a network infrastructure capable of supplying secure, high-performance voice, video and IoT connectivity to power Industry 4.0 on production floors and mobilize its workforce enterprise-wide. This included supporting dozens of manufacturing and sales facilities, each of which spans up to a half-million square feet.

To achieve its goals, KEMET wanted a cloud-managed Wi-Fi solution for fast and efficient network optimization, troubleshooting and updating via an intuitive centralized dashboard. The company also required an automated network access control solution and wired access switches throughout.

"We were unimpressed with the licensing model our existing vendor was pursuing," explains Hurtado. "Upon investigating alternatives and conducting internal testing, we decided to invest in Aruba for its proven innovation, reliability and centralized management."

KEMET's comprehensive wired and wireless solution included Aruba APs, including Wi-Fi CERTIFIED 6 APs, managed by cloud-native Aruba Central, for unified network operations, assurance and security as well as ClearPass, for policy-based network access control and 2930M access switches.

## Expectations exceeded from Day One

From the start, the deployment exceeded expectations. "With our previous vendor and controller-based system, we had to manually right-size hardware and software infrastructure whenever network changes occurred," recalls Tony Krawczynski, Manager of Network Services.

"Using Aruba Central, we have a virtual controller that scales smoothly as our needs change," he continues. "Any modifications we make get pushed out automatically to the related APs. This is helping us move toward a zero-touch model systemically, regardless how many thousands of miles a location is from our U.S. data center."

### Slashing deployment times and reducing stress

After consulting with Aruba representatives, KEMET established an aggressive implementation timeline and discovered its new Wi-Fi solution could easily meet the accompanying demands

"Although we're continuing to gain competence and deploy faster, even our early experience was game-changing," says Mario Luna, Network Engineer.

"For example, with two people, we configured and packaged 100 access points in less than two business days," he says. "Then we simply shipped them to the site and put them in place. Because we were able to pre-stage the APs, an implementation process that would've formerly taken weeks, and disrupted the production floor operations, was completed non-disruptively in days.

"We've also added the Aruba Installer app to our smartphones," Luna adds. "It supplies tools that further speed the process. Eliminating so much manual work reduces deployment stress considerably."

## ClearPass Boosts Security and Eliminates Frustrations

Due to its inability to regulate its guest connectivity in the past, KEMET commonly experienced serious productivity drains. "For instance, during popular worldwide events, like the FIFA World Cup, our Wi-Fi was frequently overloaded," explains Krawczynski.

"Another impact was manually authenticating individuals who travel, ranging from executives to sales team members," he continues. "It could easily take an engineer up to two hours to give a person access at a distant facility, while our business talent simply waited."

"Today, those headaches, and more, are gone," Krawczynski says. "ClearPass automatically identifies and classifies devices, based on multiple criteria, providing device and user access based on policies we set."

### Fine-grained visibility key to supporting Industry 4.0

Further, as KEMET executes its strategic Industry 4.0 plans, the expected explosion in IoT and Industrial IoT (IIoT) makes advanced access control a must.

Beyond automating and securing access, ClearPass supplies rich contextual insights – such as device type, vendor, hardware version and behavioral attributes, like traffic destination and communication frequency. This enables the manufacturer to quickly create fine-grained access policies while reducing security risks and meeting compliance requirements, such as the EU's General Data Protection Regulation (GDPR).

"Our visibility and audit capabilities with ClearPass are unprecedented," Krawczynski says. "In addition to regulatory compliance, there are multiple other benefits. For example, if an individual is streaming videos against a department's policy, we can alert the appropriate manager before it impacts network performance."

## Proven Ecosystem Creates Powerful Holistic Platform

KEMET also appreciates the proven technology ecosystem Aruba brings to the partnership, which assists the manufacturer with turning network infrastructure into a powerful holistic platform for a smart digital workplace.

"For instance, we're leveraging Envoy, an established Aruba ecosystem provider for visitor management, and its tight integration with ClearPass to supply streamlined, secure connectivity for our customers, contractors, visitors and employee BYOD," Krawczynski says.

"This ensures that we not only secure our network but also deliver exceptional experiences that support our brand as a leading-edge innovator in our market," he adds.

## Improving Profitability in Multiple Ways

With KEMET's new networking solution, benefits are off the charts. "In addition to significantly improving global collaboration experiences using Skype for Business, Teams and our IP telephony system, our business is no longer restricted in any way," Hurtado says. "We can now adopt new tools and applications on the fly."

Just one example is faster label printing and handheld mobile scanners at KEMET's manufacturing and sales facilities. "Such tools enable getting products out the door rather than having them sit idle," says Hurtado.

Reducing manufacturing waste also significantly improves profitability. "Previously, small latency delays added up, causing improper manufacturing on a regular basis," Hurtado says. "If a single \$40 product gets thrown away at scale, that's a considerable loss."

"Whether it's unproductive inventory or manufacturing defects, millions of dollars are at stake," he adds. "In other words, it's difficult to overstate the bottom line benefits of the high-performance, reliable Wi-Fi."

### IT staff shifts focus from reactive to proactive with predictive analytics

From an IT standpoint, resources are no longer dedicated to repeatedly troubleshooting the same issue, as Aruba Central supplies AI-based predictive analytics and deep insights. This gives KEMET continuous visibility into how the network is performing.

"We use Central's insights extensively to optimize our network," says Krawczynski. This helps KEMET with becoming proactive to keep performance, availability and experiences high.

Although deployment, training and administration issues have been few, Aruba's support response has consistently gone above and beyond. "On the rare occasions where we've needed expert assistance, our Aruba representatives assembled the right team to respond quickly and comprehensively," Krawczynski says.

## Future-ready, Smart Infrastructure

For the future, KEMET is considering additional innovations to assist with achieving goals. Presently, evaluations include Aruba's Dynamic Segmentation, for segregating switch traffic automatically in real time, and User Experience Insight, for proactive issue identification.

"We're interested in User Experience Insight for tasks like detecting when we're having a DHCP server issue somewhere in our footprint," Krawczynski says. "Then we can resolve the problem before any significant impact occurs."

Other possibilities include expanding Aruba's presence to standardize on wired switches from core to edge while leveraging predictive analytics and location awareness to improve manufacturing operations and inventory management.

Overall, KEMET sees unlimited strategic potential for its new networking solution. "We know we're just scratching the surface," Hurtado says. "We look forward to taking our Aruba networking platform to the next level."

" With Aruba and Aruba Central, our infrastructure can scale smoothly and seamlessly worldwide. Overall, we're only scratching the surface and look forward to taking our Aruba networking platform to the next level."

**GEORGE HURTADO, DIRECTOR OF GLOBAL IT INFRASTRUCTURE, KEMET ELECTRONICS CORPORATION**