Aerohive NETWORKS

case study

Averitt Express

Logistics company maximizes reliability, uptime by deploying Aerohive Wi-Fi

Challenges

- Improve wireless network security from notoriously weak WEP approach
- Improve reliability of wireless network
- Find solution that supports cloud-based, centralized management to improve ease-of-use
- Achieve 100% wireless network uptime required of a global freight transportation and supply chain management provider

Results

- Utilizing Aerohive's PPSK feature to secure wireless access
- Deployed HiveManager Online, which lets companies grow their network without upfront capital costs beyond APs
- Upgraded from autonomous APs to a controller-less, centrally-managed wireless architecture
- Network uptime goal achieved, ensuring freight is delivered accurately and on time

As a leading provider of freight transportation and supply chain management, and with 40 years in the industry, Averitt Express knows the value of dependability. Customers in the more than 100 countries it serves expect their goods to be delivered as promised, and Averitt enjoys a solid reputation for customer satisfaction.

In keeping with its commitment to offer superior freight transportation services, Averitt requires a reliable network over which it runs its business. Network uptime, availability and security have therefore been key drivers behind Averitt's technology decisions. Still, there is always room for improvement in competitive industries such as logistics, especially when it comes to keeping pace with technology and the changes it spurs. After undergoing a network audit that revealed a weakness in its existing wireless security, Averitt ended up with a complete overhaul of its WLAN, upgrading from a wireless deployment with autonomous APs to a controller-less, centrally-managed wireless architecture.

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>
> **—Angie Tellmann**
> Networking Services, Averitt Express

Challenge

Although finding a controller-less WLAN architecture and ease-of-use eventually became top priorities for Averitt, improving Wi-Fi security was the initial driver behind the company's decision to improve its wireless network.

A security audit of the company's entire enterprise network had revealed vulnerabilities on the wireless side because the company was relying on the notoriously weak WEP (Wired Equivalent Privacy) security protocol to secure its old autonomous WLAN. Stronger measures for securing the company's Wi-Fi were needed given the scope of Averitt's global operations.

"The security audit was a big red flag that made it very clear we needed to find a more secure wireless solution," said Angie Tellmann, Networking Services, Averitt Express. "Once we found out about that, we challenged our partner, Excalibur, to put some new WLAN vendors in front of us."

Not only would security improvements safeguard data from an outside breach, but they would enable the company to improve customer service by allowing it to provide secure wireless access at its facilities.

Solution

Increasing reliability by eliminating the controller from its wireless network architecture came into play when a controller-based demo crashed during an evaluation. Averitt had looked at equipment from three vendors – Aruba, Cisco, and Aerohive – but only Aerohive's controller-less solution passed muster. The untimely failure of an Aruba demo controller enlightened Tellmann, who had to drive back to work in the middle of the night to solve the problem, about the vulnerabilities of a controller-based solution.

The company had installed the equipment from each of the three vendors on its network, with some of the testing done in the evenings when the majority of its wireless users work. However, the Aruba controller failed one night around 9pm, which left Averitt unable to move freight. Tellmann had to drive into the office in order to convert back to their old wireless network.

"Needless to say, lightbulbs were going off in my head. No way did I want a wireless solution that required more of my time instead of less," said Tellmann. "Aruba and Cisco offer a resolution to the redundancy problem by suggesting a backup controller for each location, but why would we spend extra money when we didn't have to? Aerohive's controller-less wireless architecture was the way to go—hands down."

Wireless networks based on Aerohive's Cooperative Control solution are more reliable than controller-based networks, because controllers' "single points of failure" are eliminated. The Aerohive access points ("HiveAPs") provide secure fast roaming, ease of management, and state-of-the-art security without network controllers or overlay networks. Instead, software in the HiveAPs enables them to self-organize into groups called "hives", to share network control information, and to deliver QoS, identity-based policy enforcement and other advanced functionality.

"When that controller failed and the network failed the Wi-Fi network was down, I knew that a controller-based network wasn't for us. Our goal is to have 100% percent network uptime, which allows downtime only for maintenance," said Tellmann. "It crushes us as a company if we don't have computers for our associates to use. The next day, I told the Aruba rep we were done.."

With its decision made, in December of 2010, Averitt was given approval to convert approximately 55 locations to the Aerohive wireless solution. Approximately 600 wireless clients access the network via a few hundred HiveAP access points spread throughout its locations.

The network is otherwise comprised of Cisco routers connected through an MPLS network back to its core applications. Internet access for all locations is granted through a network-based firewall in the company's providers' network.

As for Wi-Fi applications, Averitt is using handheld wireless devices and Towmotor forklifts equipped with wireless devices to move freight.

"Our goal was to become more secure and flexible via our wireless network and I believe we have done that through the Aerohive solution," said Tellmann.

Results

Averitt's security needs were met immediately with its Aerohive deployment. The company is utilizing Aerohive's Private Pre-shared Key (PPSK) feature, which administrators use to assign a unique PSK to every station on the network without the administrative overhead of configuring 802.1X. When the current project is finished, Averitt plans to explore the possibility of providing wireless guest access at its facilities.

Ease-of-use requirements were also met immediately. Averitt is leveraging a cloud strategy throughout its enterprise network, and therefore is managing its network using Aerohive's Cloud Services Platform—HiveManager Online.

Aerohive's HiveManager Network Management System (NMS) enables simple policy creation, firmware upgrades, configuration updates, and centralized monitoring throughout an entire Aerohive deployment, whether building-, campus-, or global-wide, from within a single console.

The cloud-enabled version of Aerohive's management platform – HiveManager Online – is designed to make it cost-effective to start small and grow a network with no upfront capital costs beyond the access points. HiveManager online offers the same enterprise-class features, but it's easier and less expensive to implement because it is all set up and ready to use, and organizations are not required to deploy another device in their network. HiveManager Online is hosted within secure Tier IV SAS 70 Type II data centers, with scheduled backups and disaster-recovery capabilities, and it is accessible via a web browser on Windows, Linux, or Mac OSX.

"This year Averitt has mandated installing cloud based solutions," said Tellmann. "With HiveManager Online, it takes the workload off of me because I can manage the entire wireless network as a system rather than as individual Autonomous AP."

While Aerohive's wireless technology is allowing Averitt to meet its security, ease-of-use and reliability objectives, the company is also pleased with the support and attention it is receiving.

"In today's market, I've seen so many companies lose focus on customer service. Aerohive stands out in the area of customer service and genuinely wants their customers to understand how to use its products," said Tellmann. "The online help and classes offered by Aerohive are very easy to understand, even if you don't have a wireless background."

Aerohive NETWORKS

Contact us today to learn how your organization can benefit from an Aerohive wireless LAN architecture.

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CS-MFG-1103709