Multivendor wireless network management software: APs under one roof

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As wireless networks have been pushed harder and deployed more broadly, networking pros may find themselves juggling a patchwork wireless local area network (WLAN) and struggling to sync policies across various vendors' wireless network management software.

"In larger organizations, it's not likely that [they] are going to have a single vendor as [their] sole wireless LAN supplier," said Craig Mathias, principal of Farpoint Group. "They're running separate systems and … don't have a holistic view of the entire network. Something might be misconfigured or forgotten."

Vendors are beginning to respond. Aruba Networks addressed the question of vendor-agnostic wireless network management software when it built AirWave in 2008. Although Aruba had integrated AirWave with its wireless LAN infrastructure, it has maintained AirWave's ability to manage other vendors' products, even expanding AirWave's platform management capabilities to wired infrastructure. Motorola has this week announced a multivendor wireless network management platform from its AirDefense line -- AirDefense Infrastructure Management.

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The software-based platform -- which works with Motorola, Aruba and Cisco Systems wireless devices -- uses a second radio on access points (APs) to remotely troubleshoot, update configurations and firmware, monitor devices, and catch breaches from one management console, according to David Thomas, senior director of product management and strategy for the AirDefense division.

"We saw that a lot of people were misconfiguring access points, and that was leading to security vulnerabilities," Thomas said. "None of them can afford to rip and replace … so they end up with all this disparate gear they have to manage."

More vendors' equipment will be brought under Motorola's wireless network management software "over time," he said, declining to specify which vendors and on what timeline.

The console is built on the AirDefense Services Platform, which allows enterprises to purchase only the software licenses they want to use with the wireless network management tool, Thomas said. Options range from wireless intrusion prevention systems (IPS) to spectrum analyzer software, transmitting to and from a second radio built into Motorola APs or added on vendors' devices.

"We have one protocol that you're able to configure that pushes out the same 'profile' to every access point on the network," he said. "You have a natural place to control all of the settings. It takes out a lot of the guesswork."

**Wireless network management software eases admin pains**

In the absence of multivendor wireless network management software, some networking pros have coped by developing their own home-cooked workarounds, Thomas said.

"Believe it or not, they are writing a bunch of scripts to do it themselves. That blows me away every time I talk to a customer that's doing it," he said. "In small deployments, they still are hand-logging onto access points and switches and making the configuration edits themselves. But that obviously doesn't scale."

Vendor-agnostic wireless network management software like Motorola's could reduce operating expenses and consequently the total cost of ownership for wireless LAN, Mathias said.

We monitor [access points] for availability up and down, but we don't do anything else.... We're not proactive. We
"Network management is one of these few black arts that most people don't have experience with, [but] it's one of the most important elements of networking today," he said. "If we can make the people who do that more productive … we're saving money already."

For Greg Catalano, senior IT staff specialist for Boise Inc., an Idaho-based paper manufacturer, wireless network management is not just a black art. "It's kind of like a collage," he said.

With 450 APs spread throughout 32 of the company's 65 locations, the Boise WLAN would be a challenge even if it operated under one vendor's management platform. But only about 60% of Catalano's APs come from Motorola. The rest are legacy Cisco Systems and Enterasys gear with a dash of Linksys, Proxim Wireless and "other no-name vendors," he said.

"The biggest issue is keeping everything in sync -- keeping everything updated and making sure nobody is doing something on [the WLAN] they shouldn't be doing," said Catalano, who will deploy Aruba's AirWave wireless network management platform after three years of losing the project to budget cuts.

Also, as the company undergoes more compliance audits, keeping firmware up to date is a lot simpler under a single console, he said. But the biggest benefits will come from "being able to take a more proactive approach to managing this hardware, instead of the users calling us and telling us we have an outage," he added.

"We monitor [the APs] for availability up and down, but we don't do anything else, unfortunately," Catalano said. "We're not proactive. We react."

For others, avoiding the multivendor management problem has meant holding off on some projects. At Lyons Township High School, a Chicago-area high school that encompasses two campuses and almost 4,000 students, the networking team held off on creating multiple service set identifiers (SSID) until they were down to a single vendor during their migration to 802.11n, according to systems administrator Michael Vasich.

"To make [policy] changes to more than one system could have led to inconsistencies on how clients interact with the system," said Vasich, who began to replace his legacy Proxim APs with Ruckus Wireless gear last year. "We did not add more WLANs until we were down to only Ruckus access points to avoid any of these problems, [but] this is an option many organizations likely will not have."