



Boise School District

Boise Schools Tap Aerohive for Easy-to-Manage, Affordable District-wide WLAN

Challenges

- Eliminate off-the-shelf, unsanctioned, unmanaged Wi-Fi APs
- Pressing need to utilize Wi-Fi-enabled learning and teaching tools
- Limited funds for IT projects
- Wi-Fi coverage was required district-wide

Results

- Easily able to meet strict security requirements associated with K-12 education
- Able to manage deployment of all the Aerohive APs and traffic from single location
- Deployed portable computer labs to provide laptop access to more students
- Annual state-mandated testing now available online to students

The Challenge

There are a number of reasons why any organization decides to deploy a wireless network. For the Boise School District, curtailing use of off-the-shelf, unsanctioned, unmanaged Wi-Fi access points (APs) was a prime motivator.

However, while teachers and students were the guilty parties putting up the rogue APs, their wireless-driven behavior was completely understandable: There was a pressing need across the Boise school system for wireless access, and educators were moving ahead to address this issue - with or without the IT department's blessing.

"At first we were trying to keep the teachers and students from bringing in Linksys wireless routers and other access points (APs) you can buy at a retail store, but the situation was impossible to manage. So we would tell them what they could buy, but they would just go out and buy a cheaper router," said Bruce McCosh, Infrastructure Technician, Boise School District. "The bottom line is if we can't see the AP and traffic, we can't manage or secure it. We really had to get out in front of this problem."

"When I looked at all the options, all of the Cisco APs and controllers, it came down to a financial decision — I just couldn't justify the expense of Cisco."

—Bruce McCosh

Infrastructure Technician, Boise School District

In the face of this management headache, the challenge was to find a solution that could help the IT department provide the schools with a wireless network that was easily managed.

"The teachers said they needed to have wireless access. So we needed to be able to identify a solution and a set of enforceable policies."

However, like any U.S. school, funding presented an additional challenge. The Boise School District is made up of five high schools, eight junior high schools, 33 elementary schools and an assortment of specialty locations, such as a professional technical center and an elementary school turned into an ELL (English Language Learning) program.

All together, the Wi-Fi network needed to accommodate approximately 28,000 people, comprised of 25,000 students and 3,000 faculty and staff, strewn across 50-plus locations.

The Solution

The Boise School District turned to Aerohive because it was found to be the most affordable and the easiest solution to set up and use for maintaining multiple virtual LANs (VLANs). "Compared with other WLANs, Aerohive was far less complicated. It's easy to 'configure and forget it'," said McCosh. "I only have so many hours in the day, and so Aerohive's simplicity of use was very appealing to me."

While Aerohive's ease-of-use met a key requirement for Boise schools, cost ultimately trumped management as a deciding purchasing factor. Prior to its Aerohive deployment, Boise schools had been a strictly Cisco shop. However, the Cisco wireless option was, given today's tough economic climate (and its most severe impact falling on school budgets), prohibitively expensive when compared with Aerohive's cost structure and features.

"We have historically been an exclusive Cisco shop, but when I looked at all the options, all of the Cisco APs and controllers, it came down to a financial decision – I just couldn't justify the expense of Cisco," McCosh. Boise had already deployed about a dozen Cisco autonomous APs five years earlier, and these APs were scattered throughout different locations.

Cisco and Aerohive weren't the only WLAN solutions reviewed. Included among the other WLAN vendors considered for Boise's wireless deployment were Xirrus, Motorola, Aruba, Meru and Adtran. All lost out to Aerohive's controller-less, easily deployable and manageable, and more affordable approach to wireless networking.

For the full district-wide deployment, an all-Aerohive solution made the best economic sense. "We just didn't want to spend that kind of money for Cisco, even if we were going to spread it out over six to seven years."

The Boise school district was looking at deploying five to 25 APs per location across 50-plus sites. Over the next five to six years, the ultimate goal is to have general Wi-Fi coverage at every site.

Boise had already deployed about a dozen Cisco autonomous APs five years earlier, and these APs were scattered throughout different locations.

The Result

Being able to meet security requirements is critical to Boise's district-wide WLAN deployment.

For example, in complying with CIPA (Children's Internet Protection Act), Boise had to set up multiple VLANs on the wireless network so it could simultaneously lock down student's (children) machines while allowing teachers (adults) more freedom to browse the Internet. "Teachers needed to be able to have access to YouTube and some other websites that we don't allow the kids to use. We set up a student VLAN and a faculty VLAN, and ultimately we will set up a guest VLAN as well."

Boise is already seeing positive results from its Aerohive deployment. It is using Aerohive's HiveManager Network Management System (NMS) to securely manage the deployment of all the Aerohive APs, and traffic, from a single location as planned.

And there is already one program successfully underway.

"We started our Aerohive deployment with our eighth grade earth science classrooms. The rooms are set up so that the kids sit in groups with two students to a netbook, and they collaborate. It works very well. It's a great environment for learning."

Portable laptop labs are scheduled as another key use for the Aerohive WLAN.

"We have several schools that don't have a room in the school building dedicated to a lab. Historically what we've done is moved folding tables into the library and put a couple of inexpensive switches and hardwired everything. It's not an ideal situation because it becomes a big spaghetti mess."

We purchased laptop carts for these schools allowing 30 laptops to be wheeled around while maintaining a constant charge – the mobile devices are always ready to be used by the next set of students.

The mobile labs are used throughout the year, but play a critical role during the state mandated testing period. "They pass the laptops out during the year, but come state mandated testing time, the laptops are pulled back. The tests are loaded and then the students get to have practice tests they can take before the test day. Having wireless access throughout the buildings is the missing link and key to making online testing available to all students."

While these schools are enjoying their Aerohive WLAN, rest assured the rest of the Boise schools are chomping at the bit to get their deployments rolled out. The district is steadily bringing school locations online as money becomes available.

The Aerohive wireless LAN is proving to meet the Boise School District's key requirements of being easily managed and affordable for a full-scale, district-wide deployment.



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

Aerohive Networks, Inc.
330 Gibraltar Drive
Sunnyvale, CA 94089 USA

toll free 1-866-918-9918
phone 408-510-6100
fax 408-510-6199

www.aerohive.com
info365@aerohive.com
CS-Boise-100515