Aerohive NETWORKS

case study

Faxe Kommune Municipal Schools

Aerohive Sticks to the Faxe

Challenges

- Needed a single wireless network for use on each school campus
- Required a Wi-Fi architecture capable of supporting a large number of clients per AP
- Required a WLAN architecture to support features such as Roaming, QoS and Airtime Fairness
- Needed to reduce costs associated with licenses, management and expansion

Results

- Elimination of controllers, reduced costs of licenses, operation, maintenance and future expansion
- Aerohive's mesh networking capabilities proving less expensive and faster to set-up and operate
- Set up separate VLANs for privately owned student laptops and UniLogin, and for guest access
- Single AP easily handles 40 connected laptops, each streaming video simultaneously

Faxe Kommune is a small Danish municipality of around 35,000 people, of which 4,200 are pupils aged between 6-16 years old who attend public schools.

The need for faster, secure on-demand access to advanced learning resources, and the adoption of new learning technologies, has driven the steady development of IT infrastructure across Faxe Kommune's schools, which has in turn been supported by funding from central government programs.

Challenge

Lars Sørensen is in charge of specifying and procuring IT for the schools in the municipality, and in early 2010 identified a clear need to establish a new, common wireless networking technology for use at each school campus.

"The simplicity of configuration with Aerohive was outstanding, and the comparative costs of licenses, operation and maintenance – and the costs of future expansion - were all very compelling as well."

—Lars Sørensen
Head of School IT at Faxe Kommune

"Historically a lot of investment went into supplying laptops, in order to create mobile IT suites that are easy to transfer from classroom to classroom," explained Lars.

"Wireless networks, consisting of many autonomous APs, had grown up to support these investments but it was proving impossible to create a cohesive network or, indeed, to meet the rapidly increasing demands for bandwidth required by the pupils and their working practices. With so much educational content hosted online, rather than locally, we need to guarantee each pupil's access to the government operated UniLogin resource. We also face a new trend of pupils bringing their own laptops into school, and expecting access."

By June 2010, the municipality's research into wireless LAN technologies had only focused upon controller-based solutions. "We wanted a system to support a large number of clients per AP, as well as modern features such as Roaming, QoS and Airtime Fairness, in order for the architecture to have a long service life. We became convinced we needed a controller-based system, as we didn't know—at that time—about a better choice."

Solution

The controller-less wireless technology of Aerohive was introduced to Faxe Kommune by local reseller Jysk Data Networks.

"It was almost too late to change course, but the simplicity of configuration with Aerohive was so outstanding, and the comparative costs of licenses, operation and maintenance—and the costs of future expansion—were all very compelling as well. We were really impressed with the added capacity, finding that a single AP could easily handle 40 connected laptops, each streaming video simultaneously."

The decision was taken at the end of 2010 to implement HiveAP 320s across the schools. Plus a single HiveManager network management and reporting system is deployed at one of the larger schools to provide remote configuration capabilities to every AP in the municipality.

Teachers and IT tutors will use Aerohive's unique TeacherView Application to manage student access to the internet and the LAN, with a single click from the teacher's PC.

Results

The schools are pleased to be unconstrained by controllers, and Lars has linked the schools together with the help of Aerohive's L2 VPN so that the quantity (and cost) of active equipment is minimized.

Lars comments; "Aerohive's mesh networking capabilities are really important because it means we don't have to wire many of the APs—they can be completely independent, which makes them cheaper and faster to set-up and operate. Also, the VLAN separation has proved critical for us; today we have a VLAN for the school laptops, one for privately owned pupil laptops to access the internet and UniLogin, and another for guest access."

"Even with 1,500 pupils online at any one time, we estimate our available wireless capacity is around twice that of what we currently need. If we ever need more capacity, or more coverage, then we know that scaling up will be simple and cost-effective with Aerohive," concludes Lars.

Aerohive™ NETWORKS

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

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