

Edmonton Public Schools

Edmonton, Alberta, CA

Edmonton Public Schools is the second largest school district in Alberta, Canada and the sixth largest in the country.

Administered by the Edmonton Public School Board (EPSB), the district is comprised of approximately 200 schools plus one location housing 700 administrative staff.

Faced with an aging telecommunications hardware platform and high monthly costs from their service provider, the Board undertook a study to evaluate the possible benefits of using newer technology like Voice-over-IP (VoIP). Part of their evaluation determined that they were paying for 1500 lines across the entire district when, in fact, only about 400 lines were in use at any time. EPSB

realized they could build a business case for a new telecommunications system based on the ROI gained from line consolidation by removing local lines at each individual school and utilizing a centralized system for SIP session management, since all schools are on a common local area network.

After a careful and thorough evaluation, EPSB chose Aastra's MX-ONE® IP-PBX platform. The system was installed in their main data center at the Centre for Education. The centralized PRIs are routed over a private fiber network to each school, which are equipped with AudioCodes® gateways supporting a blend of T1, analog trunk and analog station interfaces. These AudioCodes units are used to front-end the existing legacy

systems local to each school. Essentially the data center has become a telco for each school campus. Using this centralized approach, EPSB reduced their lines from 1500 to 600.

CUSTOMER PROFILE

With almost 200 schools, nearly 80,000 students and over 7500 employees, Edmonton Public School district is the sixth largest in Canada.

Needs

- ✦ Ease of administration of telephony solution
- ✦ Cost management (predictable and low TCO)
- ✦ Security and redundancy
- ✦ Transparency to end users
- ✦ Standard off-the-shelf components to fit into existing data centers

Solution

- ✦ Aastra MX-ONE Telephony Server
- ✦ Aastra OneBox Unified Messaging
- ✦ Aastra Fax Server
- ✦ VMware ESX
- ✦ AudioCodes Mediant 1000 gateways
- ✦ Aastra Desk Phones
 - 6700 Series SIP Phones
 - 7400 Series IP Phones



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Given the requirement for high reliability, the entire solution was implemented running on VMware ESX. Multiple instances of the MX-ONE call manager were created and mirrored for ease-of-failover in case of an outage, maintenance upgrades or testing of new features. "We were very pleased to find that the Aastra MX-ONE system would run in a VMware ESX environment, as we had already standardized on this throughout our data centers," said Kirk Davis, Senior Network Analyst, Edmonton Public Schools. "By working closely with the telecom group and IT department, Aastra's virtualized offer enabled us to merge our telephone systems into the standard technology support organization, as opposed to the traditional separation between telecom and IT. This provides added efficiencies and cost savings."

For additional enhanced functionality, EPSB has deployed Aastra OneBox to provide Unified Communications and Aastra fax server solutions.

Although the deployment of the MX-ONE solution was a big change from an infrastructure standpoint, EPSB committed that the end user experience would not be impacted. "Fault tolerance is a key component in our commitment of service excellence to our schools, and the virtualized MX-ONE solution gives us confidence that we have high reliability. With the new system in place, the schools have seen no interruption in service or quality," added Davis.

Using this centralized approach, EPSB reduced their lines from 1500 to 600, resulting in a \$300K savings per year which can be re-invested in network upgrades and other support areas. While the bulk of the calls made from the schools are to parents or administrative personnel, EPSB was also able to gain additional cost savings by utilizing Aastra's least-cost-routing algorithms for long distance calls. Phase 2 provides a migration plan for the individual schools to also move to VoIP in a staged manner.



Key Benefits

- ✦ Over 50% reduction in lines
- ✦ Annual savings of \$300K
- ✦ Standards-based off-the-shelf components easily fit into existing data center environment
- ✦ Highly reliable, redundant and easy-to-maintain
- ✦ Improved efficiency with productivity-enhancing applications like Unified Messaging

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Kirk Davis
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