

# EDMONTON PUBLIC SCHOOLS: BEST PRACTICES FOR A “TECH AS A UTILITY” BUSINESS MODEL



## CASE STUDY

### AT A GLANCE

Edmonton Public Schools deploys BigFix to cost-effectively deliver inventory, patch, software distribution and security policy enforcement services in the context of a “Tech as a Utility” business model.

### KEY CHALLENGES

- Reduce cost and improve quality of endpoint management services to an 80,000 student, 228-site public school district
- Reduce need for in-person service calls
- Remain a competitive service provider as the school district moves to a “Tech as a Utility” competitive internal market business model

## IMPLEMENTATION HIGHLIGHTS

- BigFix installed on 25,000 computers at school and administrative locations throughout the Edmonton, Alberta metro area.
- Diverse collection of assets from Intel x386/Windows 95 machines to the latest gigahertz-class PCs running Windows XP.
- Assets communicate over Supernet Canada, a public high-speed networking infrastructure.
- Main services supported by BigFix include patch management, software distribution, asset inventory, and security policy enforcement.

## RESULTS

- Management processes that used to take weeks reduced to “coffee break” time scales
- Sharply reduced need for in-person service calls, reducing cost, automotive mileage, staff time and exposure to the elements
- Real-time views and tracking of District computing and networked assets—even those not overtly managed via BigFix
- Edmonton IT staff currently compiling a BigFix “Run Book” to capture and codify best practices supported by BigFix



“The district was looking at 55 person days of labor to do [a QuickBooks installation]. With BigFix, the ITS group was able to do the same job in a couple of hours.”

Richard D’Amours, Senior Network Analyst

- BigFix cited as key element in maintaining 95 percent internal market share for desktop/mobile computer IT services
- Reduced a software update project from 55 accounting staff person-days to a few hours of IT staff time

The Edmonton Public School Board (EPSB) operates a primary and secondary school system that educates 80,000 students at 228 facilities throughout the Edmonton, Alberta metro area. The school system’s 22,000 personal computers range from aging Intel x386/Windows 95 systems to the latest multi-core processor models running Windows XP. As with many school districts, while most PCs are for student use in classrooms, computer labs and libraries, a significant proportion of the infrastructure supports teaching and administrative professionals.

### Competitive Internal Market

In recent years, the School Board has implemented a “Tech as a Utility” business model, where individual schools can contract with internal or external providers for computer management and maintenance services. While the School Board’s in-house Information Technology Services (ITS) organization has retained a majority “market share,” it understands that it has to compete for business against external alternative service providers. Furthermore, the Tech as a Utility model calls for a single, all-in service charge to individual schools. This creates strong incentives

for the central Information Services organization to contain costs and deliver the highest possible quality services to individual schools contracting with them.

With the implementation of the Tech as a Utility model in 2005, the ITS department began a search for ways to more efficiently deliver high-quality management services to its customers. In particular, ITS wanted to automate and centralize as many services as possible to reduce the need for in-person service calls at school and administrative sites around the district. Not only would this save time and labor costs, it would reduce the need for ITS staff to venture out onto Edmonton streets, consuming gasoline, polluting the air and exposing staff to traffic hazards—especially during Alberta’s long snowy winters.

Richard D’Amours, Senior Network Analyst, led the ITS department’s efforts to automate and improve the organization’s PC security and configuration management services. With the new business model coming into view, ITS began to look for ways to automate key system functions to reduce manual labor and generally speed and improve processes. “I began the search for a new solution by reading every magazine article I could on patch management and asset inventory to find the major players. I then focused specifically on the white papers to find the best and most versatile product. We narrowed down the candidates to BigFix and Microsoft Windows Software Update Services (WSUS),” says

### A Productive Coffee Break

D’Amours has also found it easy to demonstrate the power of BigFix to end-user customer clients. “I recently had a coffee break with a school system administrator who was getting ready to install a new version of some Adobe software on systems at his school. He had planned to do the update over a spring holiday week, since turning off individual machines, loading the new software, and rebooting would take that long. As he described this to me, I typed some commands in a laptop computer I had with me and used BigFix to install the new software on his machines. He nearly fell off his chair when I showed him that I had done this for him in less than 15 minutes rather than the full working week that he had been dreading.”

D’Amours, “We recently patched and updated 16,000 Microsoft Outlook clients overnight. Outlook can be a very tricky thing to deal with, and this would have taken us at least a week previously.”

D’Amours has recently completed a project to install a new version of Intuit QuickBooks financial management software at 220 sites around the district. D’Amours comments: “Previously, the accounting department would have to send their people out

## TIME SAVINGS FROM WEEKS TO HOURS

D’Amours. “We quickly began to prefer BigFix because of its single agent architecture, minimal dedicated hardware requirements and real-time visibility properties. Patchlink superficially looked like BigFix, but the underlying technology is very different. We could have acquired WSUS at no cost for the software, but its hardware and human labor requirements made it more expensive to own than BigFix.”

### Expanding Service Portfolio

The ITS department originally used the BigFix product for operating system security patching. ITS soon began exploiting the additional benefits of BigFix in simplifying and automating a number of frequently required management services including software distribution, asset inventory and security policy management.

D’Amours cites several instances of how BigFix has helped the ITS department meet and exceed internal customer expectations. BigFix patch management has reduced the time required for patching from weeks to hours, improved first pass success rates while cutting the need for in-person service calls. According to

to every site to de-install the old QuickBooks 2003 and install the new software. Figuring four service calls in a work day including transportation to and from the site, the district was looking at 55 person days of labor to do this. With BigFix, the ITS group was able to do the same job in a couple of hours. Also, in preparing for the project, BigFix found a number of places where we had ‘under-licensed’ QuickBooks—in other words running more copies than for which we had licenses. No one’s fault really, but our intention is to be in total compliance with respect to licensing.”

BigFix’s custom policy authoring capabilities have also proven valuable in plugging security vulnerabilities. D’Amours says: “We recently wrote a policy to require a password-enabled login after a machine had been idle for 15 minutes. Previously, anyone could walk up to a computer, hit the spacebar to clear the screen saver, start using the machine and see confidential files, send forged emails, or what have you. This could be a real problem on computers used by teachers and administrators.”



### Extended Visibility

Asset inventory and management capabilities of BigFix have helped the School system keep track of and more effectively use capital equipment—even devices that cannot, for technical reasons, run the BigFix Agent. D'Amours says, "BigFix works by distributing scanning activities for execution to local BigFix Agent-managed computers. So even if a printer, projector or video conferencing set up does not have an operating system, we can still find it and track it on the BigFix console. To mention a couple of examples, we can see Wyse thin clients, network routers and DHCP servers on the same control panel as we manage BigFix Agent-equipped computers. We can even see the school's 15 Polycom video conferencing systems. These can cost \$8,000-9,000 each and no one wants any of them to drop out of sight.

### Best Practices Cement Market Share

In less than a year after implementing BigFix, the solution has become deeply embedded in EPSB's repertoire of best practices. Over the past few months, D'Amours has been compiling a run-book documenting BigFix-based system and security management practices, policies, and SLAs at the Schools. "BigFix has clearly exceeded our expectations and helped us do a better job in supporting our internal customers. We think BigFix has really helped us maintain 95 percent market share for endpoint management services inside the district. They are sticking with us not just for old time sake, but on the merit and the enhanced value of the services we deliver."

### BigFix: Breakthrough Technology, Revolutionary Economics

BigFix, Inc. offers the IT industry's only intelligent enforcement engine that enables real-time visibility and control of globally distributed desktop, mobile and server computer infrastructures. Built on a revolutionary technology platform, BigFix continually assesses and manages the health and security of enterprise computing devices at the velocity of change.

Without requiring massive investment in dedicated management resources, BigFix automates enterprise-scale malware defense, asset management, software inventory and distribution, vulnerability assessment, policy enforcement, power conservation, and patch management, without compromising network performance, end-user productivity, or security.

BigFix delivers outstanding return-on-investment through slashing IT infrastructure costs of ownership and management complexity while enabling IT organizations to elevate security configuration management from chronic pain point to positive business value resource.