



Taking municipal e-government farther afield

Efficiency and economy make a compelling case for wireless adoption, but a user-centric approach is what ultimately determines acceptance.

Shrinking budgets. Burgeoning workloads. Such are the ongoing challenges faced by most publicly-funded organizations today. While these hurdles present themselves at all levels of government, they are especially apparent at the municipal level: this is the jurisdiction that oversees services such as police, fire, public health, building inspection, transit operation—community-based services whose front-line work tends to be hands-on and travel-intensive.

These are the very reasons why municipal government workers gain some of the most marked operational improvements through wireless adoption: public health nurses, for instance, who can access medical databases and update patient records during home visits; food inspectors able to print and transmit reports while standing in a restaurant kitchen; building inspectors who can relay inspection results straight from the subdivision; police dispatchers with systems that can automatically assign emergency calls—as well as allow field officers to search databases, submit reports and call for back-up instantly and securely.



xwave's Remote Office and Dispatch System is installed in approximately 2000 police vehicles across Canada.

While the need to do more with less is what drives the creation of these applications, their successful adoption comes only when they are designed with a user-centric approach—in other words, when the end-users themselves have contributed to the development of the system. “Wireless is a wonderful enabler,” says Lawrence Surtees, IDC Canada’s Director of Telecommunications and Internet Research. “Like any technology, however, there must be an effective marriage between the application and the user.”

In the area of wireless, such a marriage is particularly important: first, because the technology is, in North America, still in its infancy (Europe and Asia, by comparison, have much higher saturation levels); and second—and more importantly—because the applications often involve users who traditionally don’t use computers in the field.

A case in point is the **xwave** computer-aided dispatch (CAD) solution now in use by police in Brandon, Manitoba. The solution involves state-of-the-art GPS/AVL (Automatic Vehicle Location) dispatching software, along with an in-car component installed on touch-screen laptops. Making use of powerful 1x digital wireless transmission (1x cellular networks allow for rich multi-device, multi-vendor interoperability), the solution gives dispatchers in Brandon a real-time bird’s-eye view of the department’s entire fleet of cruisers—not to mention highly automated location and assignment capabilities. The dispatcher can, for example, issue a dispatch ‘ticket’ electronically and silently; thereby avoiding the use

of voice channels and potential interception by analog radio scanners. As well, calls for service can automatically be assigned to the cruisers closest to where the calls originated. (Alternatively, the dispatcher can override the system and assign the calls manually.)

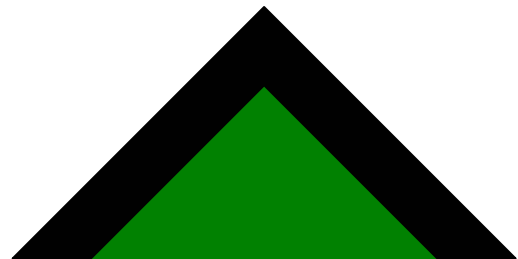
Police Inspector Harley Bryson—the officer heading up the Brandon implementation—has expressed obvious enthusiasm for the technology, citing benefits such as increased efficiency (no more waiting for radio airtime to become available to make calls) and improved accuracy (all the details of a particular call—names, addresses, license numbers—appear on-screen in the cruiser).


Bryson also observes that despite officers’ willingness to adopt the system, the fact that they had previously communicated solely by radio resulted initially in a marked learning curve.

That curve would likely have been steeper had the application not been as relevant and task-specific as it is: **xwave**, which built the solution, has been developing wireless technology solutions for public safety organizations since 1989, and has worked closely with agencies such as the RCMP to ensure its software addresses real-world policing needs.

Currently, the organization’s Remote Office and Dispatch System (ROADS) is installed in approximately 2,000 police vehicles across Canada.

One of the agencies using the ROADS technology is the Cornwall Community Police Service (CCPS); officers there have been using the in-car component for about two years.





In describing the various vendor demonstrations prior to choosing the **xwave** system, Norm Boucher, Information Services Manager at the CCPS, recalls: “One vendor showed us an in-car system that required a mouse.”

Which reinforces the point made earlier by Lawrence Surtees, and reiterated by Andrea Tait, Manager of **xwave's** Municipal Government practice : a wireless application may have an impressive ‘wow’ factor, but the system’s on-the-job usability is what will ultimately determine its success.

With that in mind, **xwave** has, over the years, developed a project-management methodology that guides the design and implementation of all its wireless solutions. Called *Xway*, the methodology parallels the organization's own plan/design/build/operate strategy applied to all implementations. To illustrate how it works, Andrea Tait describes it in the context of a pilot wireless AVL system that **xwave** is deploying for a municipal transportation provider.

The *Xway* wireless-implementation methodology:

Plan

This stage involves fundamental requirements-analysis, during which the core of the project team—a programmer, a business analyst and, in this case, a bus driver—determines exactly what users need from the proposed system. The programmer and analyst work alongside the end user to assess factors such as task repetition and ergonomics. Due to the evolutionary nature of these types of IT initiatives, the analysis is an iterative process—one that is revisited and refined continuously

throughout the lifecycle of the project.

Design

The design document is established; this document restates and validates the system’s requirements, and is reviewed by all key stakeholders.

Build

An installation plan is developed, and the software itself is designed and built. Prior to fielding, the system is submitted to extensive user-acceptance testing.

Operate

The solution is deployed, and user-level point-of-contact is established. In the case of the transportation system, accessible help-desk support is put in place, ensuring bus drivers can get help whenever they need it.

Other *Xway*-based implementations include an application recently developed for municipal building inspectors. Typically, explains Andrea Tait, inspectors can spend up to a third of their workday at their desks keying inspection information into their computers. With wireless capabilities, however, they can access and input up-to-date property information right in the field—eliminating extra travel and administration, and completing more inspections, all without incurring additional costs. Desk time is reduced. Travel time is halved. And ultimately, the faster building information is relayed to a municipal inspection office—and is approved—the sooner building crews can move on to the next phase and complete the construction. “The closer you look at it,” says Andrea Tait, “the more apparent the gains become, for both the building community and the inspectors who monitor it.”



