IBM

Planning and implementing wireless environments: An executive's guide

Thought Leadership

Introduction

"In a wireless project-management context, good planning will ensure that the project starts out in alignment and stays on target..."
— Fred B. Davis, Captain,
North Carolina State Highway Patrol (ret.)

Wireless technology is fast becoming a preferred enabler in field-dependent industries like law enforcement and public safety. Organizations are learning that by combining realtime access to criminal and motor vehicle information with mobile field reporting, they can greatly improve safety and efficiency— and potentially increase personnel availability by 30 percent or more. However, few U.S. agencies have implemented wireless technologies, primarily because perceptions prevail that it is expensive, complex and cost-prohibitive. Yet the benefits of wireless technologies are undeniable. Public safety officers can minimize administrative tasks…computer-aided dispatch systems can enhance public safety initiatives…mobile computers can eliminate problems associated with inefficient and costly paper-based processes.

e-business

Successfully implementing wireless data technology

Create a plan based on operational objectives

Implementing a successful wireless environment involves several steps. The first and most critical of these is the creation of a strategic plan that clearly identifies operational goals. Too often, an organization will focus solely on the technology — overlooking the business issues it is expected to solve. This approach can result in an infrastructure driven by price and ease of acquisition, but not adequately equipped to support desired functions without costly upgrades and/or retrofitting.

To realize optimum benefits from wireless technologies, law-enforcement agencies must define and understand the functional reasons for implementing mobile devices — why they are needed,

how they will be used and how they will impact business processes. Only then can they design the best ways to correct inefficient processes, help officers and others execute their responsibilities, and maximize profitability. Most likely, new policies and procedures for managing service calls will also be necessary.

For example, an operational goal might state that every officer should be available for at least 50 percent of their work time to perform community policing or direct patrol assignments. Equipping the officers with wireless devices and automated reports can eliminate travel time and reduce paper-based communications.
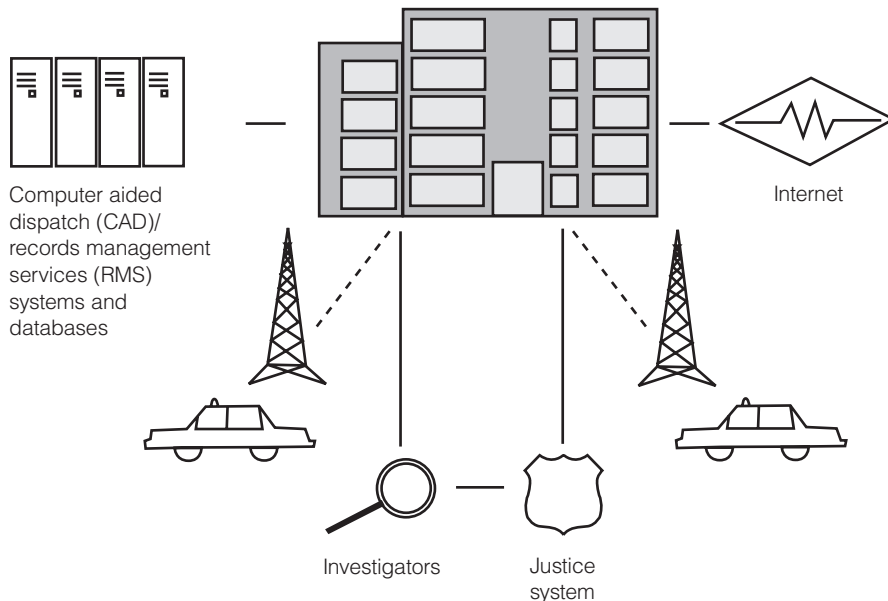
Select software that aligns with business requirements

Agencies receive grants for technology acquisition which must be spent within specified timeframes, driving organizations to acquire systems based more on grant deadlines than on business needs. Consequently, many agencies focus on the selection and purchase of mobile computers before they have chosen the appropriate software. Only later do they learn that the specified hardware lacks sufficient memory or storage capacity, and will not support the desired functions, such as voice commands and recognition of magnetic stripe readers.

At the same time, many departments opt for rugged, very expensive laptops to perform nothing more than simple queries. Such excessive costs can be avoided.

Selecting the right software prior to choosing hardware can help ensure that the latter offers the right levels of support and scalability. A department looking to implement a wireless query system may have no operational need for wireless report transmission. In these cases, inexpensive mobile computers or handheld devices can be the answer.

Critical components of a wireless environment

Computer aided dispatch (CAD)/ records management services (RMS) systems and databases

Internet

Investigators

Justice system

Perform due diligence

Once products and vendors have been chosen, vendor information and product claims should be verified, solutions compared and information gleaned from the experience of other government organizations (not just other law-enforcement agencies) that have employed both the products and the vendor.

Committing to a wireless solution that uses proprietary software or hardware can be very costly—financially and otherwise—and limits the extent to which it can be integrated with other systems. Integration should be an important criteria, since these capabilities can affect the ability to develop and implement new applications. When assessing new systems, it helps to consider the following questions:

■ How will the new hardware or software integrate with your organization's existing systems environment?

■ How easily can the configuration be changed as the environment changes?

■ Can the system share information easily with other systems? (This is a particularly important consideration for community policing or regional information sharing).

Because the term "open-systems compliant" is often used indiscriminately, it should be clearly defined during the evaluation process to reflect a department's unique requirements.

Choosing the right vendor is every bit as important as selecting the appropriate hardware and software. The best technology is of little value if the company goes out of business or is so overwhelmed with new work that it cannot support its existing customers. Determining whether a candidate can deliver on time, within the specified budget, and furnish application support over the life of the product should be key considerations.

Understand the total cost of ownership

All too frequently, agencies select the lowest-priced wireless offering, or the one most easily acquired. Considering all the factors that come into play, this may not be the best answer. The total cost of ownership can be broken down intro three components, all of which should be taken into account when evaluating offerings:

■ *Acquisition costs*—the immediate IT investment

■ *Maintenance costs*—support required for the new system (including user training)

■ *Unanticipated expenses*—including those required to employ additional personnel, support system changes and upgrades, purchase subsequent licenses and/or expand the current system.

The benefits of wireless technology are numerous. Public safety officers can obtain fast access to time-sensitive, critical data–warrants, criminal histories, vehicle registration records, and photos of missing children, for example–from the safety and convenience of their patrol cars. Computer-aided dispatch systems can enhance public safety initiatives, increase the efficiency and speed of call response and improve allocation. Mobile computers can help eliminate cumbersome and costly paper-based processes by enabling officers to create, approve, route and distribute reports directly and conveniently–from their patrol cars or desktops.

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■ A single source for products, implementation, network service and support

■ Current applications and data

■ Project planning for design, testing, training and implementation

■ Multivendor hardware/software procurement (for selected non-IBM products)

■ Design and integration

■ Education development and training

■ Implementation and deployment

■ Comprehensive operational support.

Summary

There is no question that wireless technologies will play an increasingly visible role in supporting organizations' processes and capabilities. However, to realize the full benefits of these continuing advancements, public safety and criminal justice agencies must measure the value of wireless environments from both practical and financial perspectives. Though misconceptions about cost, complexity and true operational worth have historically impeded broad acceptance, obtaining and using wireless solutions has the potential to revolutionize field operations and dramatically improve processes, as already evidenced in other industries. Planning, due diligence and prudent evaluation can head off problems early on, and help ensure that maximum benefits are derived from investing in these powerful tools.

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