Asset Management: Improve efficiency and asset lifecycle with mobility

Whether you need to scan bar codes or read RFID tags on boxes of office supplies and items on the warehouse shelves inside the four walls or enter information on bridges, roadways, streetsigns and more outside the office, Motorola's mobile asset management solutions enable the easy, accurate and cost-effective tracking of asset location and status — with minimal administrative effort.

The challenge: cost-effective maintenance of accurate asset records

Federal, state, city and municipal government agencies own and are responsible for many different types of assets — from office equipment, computers, cell phones and fleets of vehicles to street signs, roadways, and railways as well as equipment in wastewater and other plants and facilities. Keeping track of these assets is required to ensure timely inspections and maintenance are scheduled — and to meet accounting requirements, including compliance with Government Accounting Standards Board (GASB) Statement 34 (otherwise known as GASB 34).

There are a number of challenges involved in tracking the many varied assets. First is the wide physical reach of the location of assets, which are located everywhere — inside the office walls, out in the yard, throughout the city or state and in remote facilities. Another challenge is that different types of assets require the collection of different sets of information — for example, the data set required for books and consumable materials is different than the data required for a forklift or a tank. The variety of data sets translates into many different types of forms to manage. And finally, there is the sheer time and expense involved in tracking these assets. Workers must:

- Travel to the asset location, which might be inside or outside the four walls

- Complete different types of paperwork at the asset location

- Return to the office to enter the information into the computer

This time-consuming heavily administrative task requires many hours. The inefficient manual process requires the 'double touch' of data — information is first handwritten onto a form and then subsequently entered into a computer. The opportunity for data errors is high — a serial number can inadvertently be written incorrectly, and handwriting can easily be misinterpreted when the paper forms are entered into the computer. And the cost of errors in the asset management function cannot be overstated — an 'invisible' piece of equipment that is not serviced in a timely fashion may have devastating results. For example, if routine maintenance is not performed on a piece of critical equipment in a water treatment plant, a possible malfunction could affect the quality of the water coming out of the tap in homes — threatening the health of the families who live in the community.

KEY BENEFITS

Automated collection of asset management data

Improved productivity

Fewer data errors

Cost-effective regulatory compliance

More timely inspection and maintenance, helping to extend asset lifecycle

Integration with related business systems, such as inspection and maintenance applications, improves return on investment for existing technology investments

An overview of the technology

There are three key components involved in Motorola's asset management mobility solutions: the mobile devices, wireless networks and the mobile applications. Following is a brief overview of each:

Mobile computers

Motorola offers a wide range of mobile computers designed to meet the needs of your applications:

- Rugged mobile computers built for all day outdoor use in the harshest environments as well as cost-effective and compact, durable EDAs

- Support for up to four radios for true inside-outside wireless connectivity — WWAN, WLAN, WPAN (Bluetooth) and GPS

- Advanced data capture functionality, including integrated bar code scanning for instant capture of information on driver's licenses and other ID cards, as well as image capture

- Integrated advanced voice functionality eliminates the need for mobile workers to carry multiple devices; available voice capabilities include walkie-talkie style communications as well as cell phone functionality

Wireless network connectivity

Motorola can provide the right wireless networking solution for your mission critical government application:

- Public WWAN network connectivity: Motorola mobile devices offer connectivity to public cellular networks, giving you the flexibility to choose the provider that best meets your coverage needs

- Private WWAN/WLAN network connectivity: Motorola's comprehensive wireless networking solutions enable the deployment of a private wide or local area Wi-Fi/mesh-based networks, providing complete control over field-based communications, including network volume, availability and uptime

- WPAN provides on the spot wireless connectivity to peripherals such as mobile printers and headsets

- GPS connectivity provides support for location-based applications

Mobile applications

Our award-winning partner channel offers deep vertical industry expertise and best-in-class applications that have been tested and validated on Motorola platforms, providing:

- Rapid deployment

- Ease of use for rapid adoption

- Seamless integration with your existing business processes

- Easy integration with your existing IT infrastructure

- Faster return on investment

And since most Motorola mobile computers are built on a common technology platform, the applications you invest in today can be easily migrated to the Motorola mobile computers of tomorrow. You can easily support changing business needs without the substantial costs associated with new application development — future proofing your asset management solution and providing superior investment protection.

The solution: automating data capture with mobile computing

Since workers are often mobile while auditing assets and reviewing inventory, Motorola's mobile computers are a natural choice. When workers responsible for inventorying assets are given a handheld mobile computer with the ability to read bar codes, direct part marks or RFID tags as well as capture images, they have the tools they need to streamline the inventory process, right in the literal palm of their hands. Now, instead of handwriting data on a paper form, workers simply scan the bar code or RFID tag on an item — and the form is auto-populated with the right data set. And instead of transferring the information from the form into a computer, the press of a button can transmit the data on the electronic form directly into back end systems — no data entry required.

With mobility, asset location and status can be tracked easily and cost-effectively — with minimal administrative effort. A rich data record can be created for each asset, including make, model, manufacturer, date placed in service and parts utilized during service operations. In addition, the automated capture of asset data dramatically reduces errors. And on site, any related information required — from asset history to maintenance records — is just the press of a few buttons away.

Motorola offers a wide variety of mobile computers to meet the environmental requirements of the many asset locations — rugged mobile computers and notebooks are built to handle field conditions, delivering reliable performance in spite of exposure to extreme temperatures, moisture, dust and the inevitable drops. Compact EDA mobile computers are ideal for less demanding environments, such as the carpeted space of the office. Motorola's RD5000 Mobile RFID Reader enables a new level of speed and accuracy in inventory management applications in RFID-enabled warehouses. And since Motorola's easy to use technology is second nature, workers stay focused on the task at hand — and not the technology.

Mobile asset management at work…

…in the office

In the office, there may be thousands of pieces of office equipment to track, including desks and chairs to conference room equipment, copiers, desktop and notebook computers, two-way radios, cell-phones and more. Tracking asset location can be as simple as pointing and scanning with a Motorola mobile computer, or wheeling a cart with an RD5000 through the office space.

Federal, state, city and municipal government agencies need to track a wide range of assets — from office equipment, computers, cell phones and fleets of vehicles to street signs, roadways, and railways as well as equipment in wastewater and other plants and facilities. With a mobile computer in hand, workers have the tools they need to streamline and error proof the typically time consuming inventorying process — as well as provide cost-effective regulatory compliance with Government Accounting Standards Board (GASB) 34.

…in the field

Tracking assets in the field may require workers to traverse city streets or a military base in another part of the world. Regardless of location, Motorola rugged mobile computers can withstand the toughest of conditions, enabling the extension of time-saving mobile computing power right to the point of work. Information can be quickly and easily captured for diverse assets, such as road signs, streetlights and heavy equipment in public works facilities and more — complete with a photograph to indisputably document asset condition. GPS-enabled mobile devices can capture the exact location of an asset. In addition, military assets — such as weapons, trucks and tanks — often use direct part marking (DPM — a permanent type of bar coding imprinted directly on an asset instead of affixing a bar code label). Until recently, technology did not exist to allow these marks to be easily scanned in the field. But Motorola's mobile computers with DPM capability enable government agencies to purchase a single cost-effective device capable of scanning multiple data capture technologies, including 1D and 2D bar code scanning and the capture of RFID tags.

…in warehouses and storerooms

In government, a wealth of assets is stored in warehouses and office supply rooms. For example, major distribution centers might house supplies for the military, while office storerooms in the carpeted space might contain light bulbs, pads of paper and other consumables. A mobile computer can be used to scan incoming shipments of office supplies, and to take periodic inventories to determine when to order supplies. In the warehouse, asset tracking can include the materials on the shelves as well as the warehouse equipment — such as forklifts, conveyors and other material handling equipment. With RFID, thousands of boxes can be instantly inventoried upon arrival as well as on the shelf through the deployment of Motorola's fixed or mobile RFID readers. And a hardened RFID tag can automate tracking of warehouse equipment.

…in the yard (vehicles/fleets)

Government agencies frequently own one or more vehicle fleets — from street sweepers to garbage trucks and snow plows to pick up trucks for park rangers and more. With mobility, a quick scan of a bar code or RFID tag can enable the automatic completion of asset tracking paperwork, ensuring that the accurate costing and condition information is captured. And finally, GPS can be deployed in-vehicle, providing the real time visibility required to improve asset utilization and applications such as dynamic scheduling.

The benefits of real-time automatic data capture

The ability to automate the tracking and costing of assets delivers a number of benefits:

Productivity increase

The complete elimination of paper-based forms frees time for workers to complete more mission critical tasks per day — precious time is no longer wasted on administrative paperwork.

Reduction of errors

The elimination of the need to handwrite and then re-enter information into a computer also eliminates the errors inherent in that manual data capture process. As a result, the opportunity for costly errors is reduced — and data integrity is improved.

Cost-effective regulatory compliance

The ability to automate the capture of the information required for GASB 34 enables agencies to achieve cost-effective compliance — without adding process or people.

Reduced cost of ownership for assets

The ability to integrate the asset management mobility solution with maintenance and inspection applications ensures that assets are properly scheduled for inspection and maintenance — and that maintenance is promptly and accurately performed. As a result, assets receive the right level of care at the right time, helping to extend the lifecycle and reduce the cost of ownership for the asset.

Summary

Asset management mobility solutions make strategic and financial business sense. These solutions streamline the asset management function, allowing the cost-effective tracking of assets and the compiling of data required to meet government accounting regulations. Employees are more productive and assets are better managed — inspections and maintenance take place at the appropriate times, helping to extend the lifecycle of major capital assets as well as provide visibility into theft and turnover of smaller, more portable assets.

Asset management mobility solutions also make financial sense. While asset management may require the capture of different data types (such as bar codes and RFID tags), Motorola's advanced mobile computing devices allow agencies to purchase a single device that can scan the various data types in use throughout the agency. Capital expense for devices is reduced, as well as the related maintenance and customer support issues.

Asset management mobility solutions also extend the value of other business systems. Our solutions enable the real-time distribution of information into other core business applications and systems, such as inspection and maintenance. The value of your other technology investments is increased, further improving the return on investment (ROI) and effectively reducing the total cost of ownership (TCO).

Why choose Motorola for your mobile asset management solutions

When you need an accurate and dependable accounting of all your assets, choose Motorola. Whether you need to track assets inside or outside the enterprise — or both — Motorola provides on-the-spot mobile computing you can count on. You get the reliability, security, manageability and superior uptime that mission critical applications demand. We offer the strength of an industry leader — and the power of tested and proven end-to-end solutions. Our planning services can help ensure your mobile asset management solution is designed from the ground up for maximum success, factoring in ease-of-use and user adoption rates as well as wireless connectivity requirements. Our wide range of mobile computing devices is designed to handle the rigors of all day every day use in the field — from rugged or EDA integrated voice and data handheld mobile computers to vehicle-mount workstations and notebook computers.

Our devices aren't just tough on the outside — they're tough on the inside, packed with processing power and Motorola-only features that provide outstanding application performance and pervasive wireless connectivity. True inside-outside mobility enables the same device to connect to a private or public wide area network when workers are outside the four walls, and seamlessly switch to an available wireless LAN upon return to the office for the delivery of more cost-effective in-building voice and data services. Our world-class business partners provide best-in-class applications that integrate easily with the existing workflows of your agency to minimize disruption of day-to-day business procedures. Our post-deployment services minimize downtime, helping to keep your field mobility solution running at peak performance every day of the year. And our management solutions bring a new level of simplicity to the management of mobility solutions, enabling you to easily stage, update, monitor and troubleshoot your mobile devices in the field from a single centralized location.

Do you know where your assets are? With Motorola, you will. For more information on how Motorola can help you improve the efficiency and reduce the costs associated with asset management in your agency, please visit us on the web at www.motorola.com/governmentandenterprise

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