

Mobilizing RFID Applications

The future of vehicle-mounted printing and data-collection devices seems secure, helping companies improve efficiency and create a competitive advantage.

By Gary Jahnke

June 25, 2006—With heightened competition and employment costs on the rise, companies are finding relief by taking advantage of vehicle-mounted printing and data-collection devices to make their operations run more smoothly.

Improvements in battery life, harsh-weather durability, print speed, affordability and robust wireless networks make vehicle-mounted data-collection devices and printers, or vehicle-mounted units that perform both functions, a viable option for companies.

With the wide range of applications available, it is now possible for employees in the field to provide customers on-demand receipts, invoices, order forms, inspection labels, service records and other documentation. The result is increased efficiency and more reliable data.

Companies in virtually every industry are using mobile devices that can both print and capture data from such media—primarily bar-code labels, but in some cases RFID tags, as well. According to [Zebra Technologies](#), a vendor of RFID printer-encoders, some industries that benefit from the technology—along with examples of applications that save time and costs—include:

- **Field Sales and Service:** Invoices are printed on site, and the transaction is immediately logged in at accounts receivable.
- **Warehousing and Distribution:** Forklift-mounted printer/data-collectors generate shipping labels at parcel pick-up.
- **Manufacturing:** Production line samples are labeled for quality control.
- **Hospitality:** Bag-tag and claim-check applications help prevent long lines and lost luggage.
- **Hospitals and Labs:** Blood samples are labeled immediately to ensure accuracy and traceability.
- **Law Enforcement:** Mobile computers and printers for citations save police departments thousands of dollars in data processing.
- **Retail:** Handheld devices are used for in-aisle shelf-labeling, price auditing and price tags.

The data collected is stored electronically and can be made instantly available at the office, or to the customer. The real-time data can help companies with tasks such as accounting, customer service and route-tracking. Adopters of the technology say the real-time visibility improves efficiency and creates a competitive advantage.

In manufacturing and warehouse settings, mobile printers/data-collectors are more effective tools for some tasks than stationary units. The mobile devices can be mounted in forklifts and delivery trucks, for instance. Connected to the company's network wirelessly, the devices collect data that can then be used for immediate

feedback to customers for shipping and receiving updates.

Cable-free connections between printers and computers that store captured data make access simple and eliminate problems with connector cables. Infrared light, similar to a remote control, is one method of cable-free connection, but that requires a direct line of sight. A better technology is Bluetooth, because it provides excellent range and speed without requiring a sight line.

While not yet widely used, mobile RFID applications will likely grow in popularity in the years ahead. Such applications will couple the efficiency gains of mobile printing with the depth of data and visibility that RFID offers.

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