

Integrated Solutions

Smaller, faster printers enhance mobility solutions.

Mobile Printers Continue To Add Value Across The Enterprise

Mobile printers allow end users to print labels, tickets, receipts/invoices, and other documentation at the point of activity — all of which improves accuracy and efficiency, while untethering workers from larger desktop or fixed-mount printers. With advancements in printing technology and processor technology, mobile printers are now faster, smaller, and easier to use than ever before.

But mobile printers are rarely deployed on their own. They are part of a system, and users should keep that in mind when selecting these devices. “A mobile printer is almost always used in conjunction with a mobile computer,” says Dan Bodnar, director of mobile printers at Intermec Technologies. “End users must recognize the importance of a system approach to defining and implementing an enterprise mobility solution that includes the computer, printer, software, peripherals, and management tools. This type of approach has proven to lead to the lowest overall cost.”

Use of mobile printers is expanding into new applications. Municipalities and law enforcement agencies have begun deploying mobile printers for citation applications, for example, and they have been used in warehouse management systems to augment fixed label printers. Interest has also steadily risen in field service applications. According to Aberdeen Group’s *Trends in Mobile Printing* study from 2009, 27% of best-in-class service companies noted that mobile printing functionality was a top priority for their firms. “Until this year, only a third of service organizations were using mobile printers,” says Adam Ortlieb, associate director of marketing at Seiko Instruments USA. “Now, multiple analyst firms are pointing at

double-digit growth. I think the impetus boils down to greater efficiencies, reduced errors, enhanced customer service, added revenue opportunities, and lower variable costs. From a financial standpoint, there can be a top-line and bottom-line impact by going mobile.”

New Technologies Expand Mobile Printing Options

Mobile printers are available in a variety of designs, but most of the units used in field service or warehouse applications are typically worn on a belt or shoulder strap. Some larger units may be mounted in a fork truck or in a delivery vehicle, but even these devices can often be carried if necessary.

Most mobile printers use direct thermal technology, using heat to create an image directly on the label or form being printed. Because these printers don’t require a ribbon, this makes them easier and less expensive to operate. However, there has been increasing interest in other printing technologies, including thermal-transfer printers that utilize a ribbon, says Paul Lehmann, director of product marketing and management, Datamax-O’Neil. “More thermal-transfer portable solutions are making their way into the market,” Lehmann says. “You can get there with a media-based solution or a hardware-based solution. Some applications will require it, regardless of the portable nature of the printer.” In either case, media selection will play a key role in the success of the solution. Cheap labels or paper may not be durable enough for many industry applications; printer media are available that can resist exposure to sunlight, water, chemicals, and other materials.

Mobile printers are also available with built-in



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magnetic card readers and other accessories that can streamline data collection operations and reduce the number of devices needed for a mobile application. “Smart” printers that include processing intelligence on the printer can even eliminate the need for mobile computers in some applications. “Cordless, unintelligent handheld scanners are now being used with intelligent mobile printers to create cost-effective mobile scan-print-apply solutions,” Bodnar says. “These solutions replace capital-intensive fixed printing stations with cable scanners or cart-based printing stations with cabled scanners.”

“Value” Printers May Have Hidden Costs

Hardware costs have been plunging across the automated data collection market, and the availability of low-cost components has drawn additional manufacturers and suppliers into the market. Some suppliers have even begun private labeling printers from low-cost manufacturers. While these devices can reduce the cost of deployment, they may come with hidden costs that ultimately put the application at risk. “If the account’s decision is to focus on a more value-oriented solution, companies need to more carefully ask if the printer can support their needs, if the manufacturer is committed to the product [do they own it?], and if the manufacturer is committed to the market [how long have they been here, and are they likely to stick around?],” Lehmann says. “Printer manufacturers need to supply more value for less money. Most will agree that there is value in providing hardware that works out of the box, backed by a solid company with strong support if things get sticky. Value printers will be expected to run with the ‘big boys’ of portable printing, all at about half the price.”

Users should also evaluate power management strategies for these printers — how long will the batteries last? How many docks, chargers, or spare batteries will be required to keep the printers operational in the field? Increasingly, printers have to be integrated with wireless networks, so security and roaming capabilities are important. Much like mobile computers, these printers can also be centrally managed via the printer’s own MAC (media access control) address or through a connection with an associated mobile computer. This greatly reduces the cost of IT support for the printers (particularly in field applications, where users may be

miles away from the IT staff) and increases application flexibility.

Mobile Printers Drive Efficiency

In general, mobile printers provide a return on investment by improving productivity and reducing error rates. In warehouse or supply chain environments, error rate reductions come through labeling items at the point of activity; in field service or delivery applications, these printers allow workers to generate paperwork, receipts, and invoices in the field, eliminating the need for redundant and error-prone manual data entry at the end of a work day. The printers can also improve cash flow cycles through providing point of sale capabilities in the field. They can also improve customer loyalty. “The softer impact of strengthening customer loyalty might be overlooked more often up front,” Ortlieb says. “According to a recent Aberdeen Group study, 85% of respondents realized improved customer satisfaction by deploying mobile printers. And since servicing existing accounts is so much more cost-effective than securing new customers, it is an important benefit to explore with users.”

In order to accurately gauge the payback that mobile printing may provide, though, users have to make an honest assessment of the TCO (total cost of ownership) of these devices. “The most common mistake end users make is to consider only the initial acquisition costs of the mobile printer as part of the decision,” Bodnar says. “The best way to avoid this error is to conduct a thorough analysis of the hard costs and soft costs associated with printing as part of the solution. This analysis should include the following costs: hardware, software, development, training, operational, and downtime.”

Ortlieb also warns that utilizing consumer-grade, nonrugged printers in enterprise applications will ultimately increase the cost of deployment, even if these devices may cost less up front. “Again because of the climate, value is absolutely critical,” Ortlieb says. “Beyond that, reliability and ease of use are extremely important. The printer has to run day in and day out because downtime for a mobile worker is so costly. And, the technology has to be easy to use to free up mobile workers to focus on their core tasks. This is the key to facilitating a rapid return on investment.” ●