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Trends in Mobile Printing

Service organizations are increasingly looking to empower their field teams with tools and information to drive productivity, boost satisfaction, and drive down overall costs. In Aberdeen's 2009 _Trends in Mobile Field Service Report_, responding organizations reported an active interest in a wide variety of hardware tools for their field teams. Of that arsenal, mobile printers were currently being leveraged by 19% in 2009, trending to 25% to 27% in 2010. In fact, 27% of Best-in-Class service organizations highlighted that mobile printing functionality was a top priority for their firms.

Analyst Insight

Aberdeen's Insights provide the analyst perspective of the research as drawn from an aggregated view of the research surveys, interviews, and data analysis
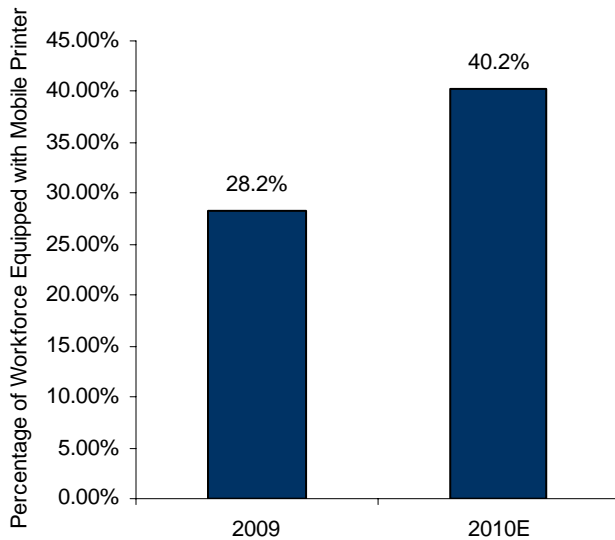
Table 1: Technician Mobile Ability

Technician Mobile Ability / Access to:	Evaluating (High Priority) (% Best-in-Class)
Daily / weekly performance reports	41%
Scan bar codes on parts and equipment	38%
Capture proof-of-service	32%
Customer / site information	32%
Product schematics and resolution best practices	27%
Access to job / safety plans	27%
Print (invoices, receipts, etc.)	**27%**
Optimal routes	24%
Videos (instructional, training)	24%

Source: Aberdeen Group, June 2009

Printing: Evidence of a Successful Transaction

With the increased connectivity afforded by Bluetooth and Wi-Fi networks, and the ever diminishing size of printers, mobile printing is a capability that can easily be, and is already being, accessed by service organizations. In a follow on questionnaire to Aberdeen's 2009 mobile field service report, respondents indicated that nearly 28% of their workforces were currently equipped with a mobile printer with intentions of raising that to 40% in 2010. More so, 45% of firms indicate that they could be leveraging up to 100 mobile printers in 2010. Of firms that currently leverage mobile printers, the major items that are printed out in the field include receipts, captured signatures, work orders, and reports. These firms are also looking to utilize printers for work estimates and field reference information such as diagrams, maps, etc.
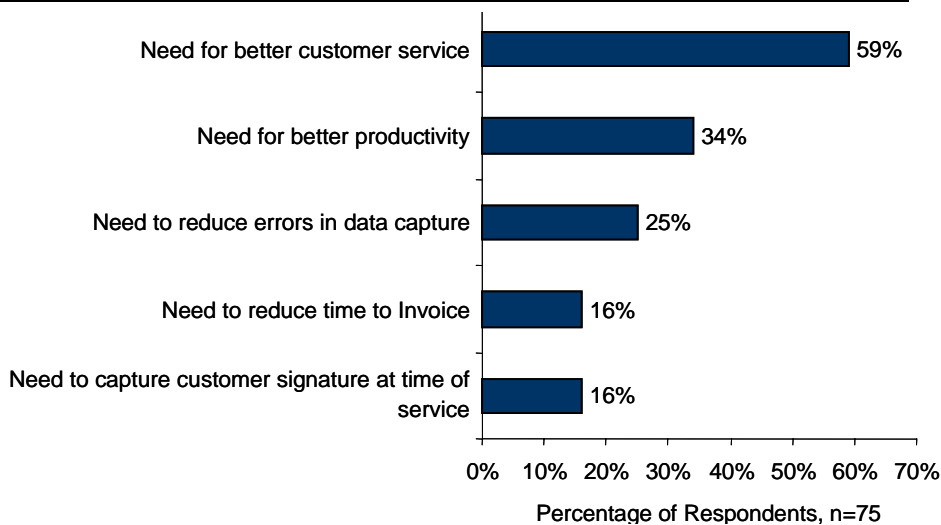
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Figure 1: Mobile Printer Adoption

Source: Aberdeen Group, September 2009

As with the drivers for overall mobility in field service, customer service, and productivity are the top reasons for organizations to be evaluating mobile printers in their organizations. Fifty-nine percent (59%) of organizations in the follow-up printing survey indicated that the need for better customer service was a major factor driving them to use or evaluate mobile printers (Figure 2).

Figure 2: Drivers for Mobile Printing

Note: Respondents were asked to indicate their top two choices

Source: AberdeenGroup, September 2009

Printing of invoices, orders, instructions, and other materials provide a tangible representation and record of completed work which thereby enables an opportunity for future transactions between the servicing company and the customer. The immediate printing capability also reduces a significant amount of time spent by field workers on entering information into paper-based forms and receipts, thereby allowing these workers to move on to other service tasks. This results in greater productivity for the service organization.
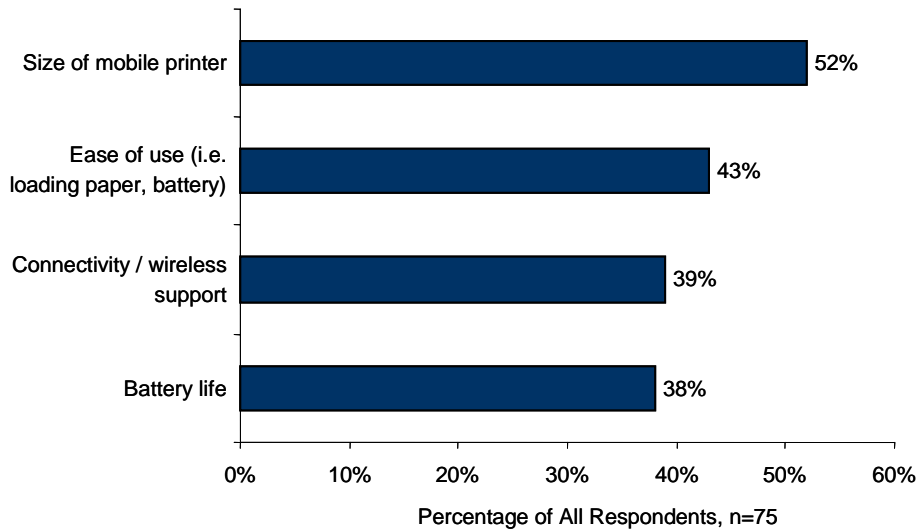
Tied in with the reduced paperwork is the need to reduce errors associated with the manual capture and transfer of information to paper forms or the need to eliminate errors tied to the inaccurate interpretation and logging of handwritten notes, which can lead to future errors and delays in order or customer management, and thus lead to inaccurate billing. It is surprising to note that only 16% of firms indicate that the need to speed time to invoice is a key driver for them to evaluate mobile printing capabilities. Generating an on-site invoice at the point-of-service immediately begins the Accounts Receivable (A/R) or cash collection cycle, shaving hours, days or sometimes weeks off of when the cycle can actually start, as it greatly reduces the time spent in mailing completion forms and orders.

Already in the Field

For firms that have already been using mobile printers out in the field, 85% report that they have seen an increase in customer satisfaction from the use of mobile printers with 59% highlighting increased productivity. Another 54% also highlight that they have seen a reduction in errors owing to mobile printing capabilities, with 38% indicating that printing has reduced time-consuming duplication of efforts.

With these benefits at hand, it isn't surprising to see the intentions of survey respondents to increasingly look to equip their field teams with mobile printing capabilities. As such, the key criteria noted in the selection of mobile printers range from the size of the printers to the overall battery life while out in the field (Figure 3). It is somewhat surprising to see initial cost and anticipated lifecycle cost represented further down the pecking order, as represented by 25% and 23% of respondents respectively. These cost factors usually play a major role in the selection of mobile devices, as represented by past Aberdeen mobile field service research.

Figure 3: Selection Criteria

Note: Respondents were asked to select the top four answer choices

Source: Aberdeen Group, September 2009

Other criteria represented include:

- Ability to stand up to field conditions - 32%

- Resolution of print output - 18%

- Weight of printer - 16%

- Volume of print output - 11%

Within these selection criteria, survey respondents are familiar with a number of providers of mobile printers of which Brother, Canon, Epson, Zebra, and Intermec top the list. Organizations such as Brother, Zebra, and Intermec specifically provide printing solutions for the field service market via their partnerships with application and hardware providers or through resellers that directly address the field service marketplace.

Concluding Remarks

Despite the increasing intentions toward automation of field workforces, mobile printing adoption still lags. For these organizations, the ROI case for printers has not been convincing enough to be included in the overall purchase cycle. Fifty-five percent (55%) of survey respondents indicated that the perceived lack of ROI was the biggest challenge in the initial or increased adoption of mobile printers. As such, there is a significant opportunity for education around the value of mobile printers in the field service market. Productivity and customer satisfaction benefits form the initial case with regards to the return from these solutions and adopting organizations in Aberdeen's survey have highlighted the likelihood of improvements in these areas from the use of mobile printers. However,

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organizations need to understand the revenue and cash flow implications associated with reduced errors and duplication, and from the improved time to invoice and time to cash. These are benefits that aren't currently being captured or evaluated by field service organizations and can go a significant way in furthering interest in these solutions and in flushing out the true ROI.

From a cost point of view, nearly 40% of survey respondents indicated the initial cost of mobile printers was a major challenge, however the costs associated with printers are likely to drop (as is the case with most mobile hardware) as more providers begin to pay attention to the market and as more mobile field service application providers add on printing capabilities to their applications. Selecting organizations shouldn't ignore the cost and time associated with bringing their workforces up to speed on the use of these printers and to the workflows tied to adding printing functionality out in the field. From an IT point-of-view attention should also be paid to the compatibility and connectivity of these printers with available and organization-sanctioned wireless or Bluetooth networks out in the field.

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Related Research	
Trends in Mobile Field Service; June 2009	*Mobility for Service in Asia-Pacific*; December 2008
EMEA Firms Make the Case for Mobile Field Service; February 2009	*Mobile Device Trends in 2008*; December 2008

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