

## How to Use Mobile Payment Collection Technology to Boost Profitability

### Executive Summary

Investments in mobile automation are enabling field sales and service professionals to complete tasks faster, but are their organizations getting paid any faster? If not, they are missing out on some of the lowest-hanging fruit on the mobile automation benefits tree.

By equipping mobile workers to collect payment in the field, businesses can significantly improve their cash cycle time, reduce uncollectable invoices and even increase revenues by upselling and cross selling service plans, spare parts, and more.

Mobile payment collection represents low-hanging fruit because it often only requires a modest incremental investment in complementary components. If field sales and service staff already have mobile computers and wireless connectivity, the incremental investment needed to enable mobile payment collection can be recovered very quickly, often in months, and can provide a sustainable cash flow benefit. If mobile computers are not currently used, a payment collection application will shorten the time to ROI for a mobile automation initiative.

This white paper:

- Provides an introduction to how mobile payment collection systems work;
- Explains what components are needed to enable mobile workers to process card and check payments in the field;
- Highlights the potential cash flow and other potential benefits that businesses of different sizes and in different industries may expect from enabling their mobile workers to collect payment at the time of service.

### Why Collect Payment in the Field?

The easy answer is to pick your cliché: Time is money; cash is king. The sooner your business gets paid for the products and services it provides, the more profitable and competitive you will be.

To really answer, *Why collect payment in the field?* you have to ask: *Is it worth it to ask our time-pressed sales/service/delivery staff to process payments?* Efficiency dictates that sales and delivery staff visit as many customers as possible in a day. Field service technicians often have specialized skills that produce significant service revenue for the company. It is fair to ask whether their time is best spent on a clerical function like accepting payments.

In the past these have been difficult decisions. After all, cash has always been king, yet most companies do not collect and process payment at the customer site. Today the decision is much easier because innovation has enabled mobile workers to collect and process payments quickly, conveniently and securely. Payment collection systems, which can be added to many legacy mobile computing applications used in sales, delivery and service operations, are fast enough so the small amount of incremental time needed to process the transaction is offset by the cash cycle advantage gained. Consider the following findings from a 2011 study<sup>1</sup> on field service billing practices:

- Companies that prepared invoices by manually recording the labor and parts used for service calls averaged a 10 percent decrease in service revenues;
- Companies that used mobile computers and printers to generate an invoice on site at the completion of the service call increased their service revenues by an average of 12 percent;
- Firms that extended on-site invoicing to include mobile payment collection increased service revenues by 21 percent.

### Fast Cash Flow

Without mobile payment collection the soonest a business can reasonably expect to be paid is four days after the delivery or service was completed, even if mobile invoicing is used, as the table below illustrates. Of course, most customers do not pay invoices the same day they are received. The average organization takes 10.2 days to process an invoice and 30 percent take more than three weeks (see notes<sup>\*\*</sup>).

1 Aberdeen Group "Service Intelligence and Performance Management 2011"

The best-case scenario without mobile payment collection is a four-day lag between the time sales or service was completed and the time the vendor was paid; a 14-day lag is more likely and a 30-day lag would not be uncommon. During that time the service provider's suppliers probably will have already been paid, its mobile workers will have collected their paychecks and their vehicles will have been filled with fuel – it seems likely that the entire value chain will have been paid except for the business providing the service.

Mobile payment collection aligns the cash cycle by reducing the payment lag time. Your business will be paid as quickly as the same day it delivers products or services. Transitioning from the payment lag times listed above to a same-day payment is like getting a 14-day or 30-day cash windfall. The extra cash freed by accelerating the payment cycle can be used to help the business, instead of covering past expenses or paying for inventory. Cash flow is one of the strongest differentiators between top-performing businesses and average companies, regardless of company size or industry.

**Figure 1: Payment Time Lag for Various Mobile**

Field sales/service worker submits invoices to office...	Time after service performed for invoice to arrive at HQ for processing	Days for office to process	Days to arrive at customer*	Time for customer to process**	Time to receive from customer in mail	Time to process payment at HQ	Payment lag time if customers process invoice same day as received***
Nightly	1 day	1	0-3	?	1-3 days	1 day	4-9 days
Twice weekly	1-3 days	1	0-3	?	1-3 days	1 day	4-11 days
Weekly	1-7 days	1	0-3	?	1-3 days	1 day	4-15 days
Bi-weekly	1-14 days	1	0-3	?	1-3 days	1 day	4-22 days

\* 0 additional days if invoice is fax or electronically submitted to customer; 1-3 days if it is mailed.

\*\* The average organization takes 10.2 days to process an invoice; 30 percent of organizations take an average of 24.5 days. Source: Aberdeen Consulting "E-Payables 2011."

\*\*\* Does not factor in non-business days such as weekends and holidays when invoices may not be processed.

## Reduced Processing Costs

Collecting payment in the field reduces costs in two ways. First, because transactions are processed electronically in the field, there is significantly less time and labor required to enter and process invoices in the office. The streamlined process has enabled companies to reduce headcount for support positions, and to expand their business without adding staff. The average cost to process an invoice ranged from \$6.99 at organizations with a high level of automation to \$11.62 at those with a low level of automation, according to a 2010 study by the Institute of Management & Administration (IOMA).<sup>2</sup> Electronic, on-site processing also streamlines the collection process, resulting in less time and fewer people required to process invoices. Second, collections improve because transactions are validated in real time. This prevents bounced checks, rejected credit cards, unpaid invoices and all their associated collections and processing costs.

## Error Reduction

Invoices are likely to be more accurate when they are prepared on site at the time of activity. Mobile invoicing applications include built-in error checking features to help ensure product numbers, quantities, service codes, labor times and customer details are correctly entered into the system. Plus, workers are unlikely to forget to bill for any product or services performed if they are producing the invoice immediately on-site. Reducing errors also reduces exception handling, which is a drain on profitability. One company found the average cost to resolve a disputed DSD invoice is \$70.00.<sup>3</sup> The invoice error rate is 29 percent lower for companies that are highly automated compared to those with a low level of automation, the IOMA study found.<sup>4</sup> There is a correlation between error rates and processing costs. As noted, the study found that invoice processing costs are 66 percent higher for companies with a low level of automation (\$11.62 compared to \$6.99).

2 Institute of Management & Administration data accessed from [http://www.acom.com/accounts\\_payable/articles/ioma\\_AP\\_effect\\_of\\_auto\\_on\\_ap\\_0310.html](http://www.acom.com/accounts_payable/articles/ioma_AP_effect_of_auto_on_ap_0310.html) on April 2, 2012.

3 Cyclone Commerce – Scan Based Trading Case Study - Sara Lee Bakery Group – accessed from [www.softcare.com/whitepapers/wp\\_SBT\\_retailers.php](http://www.softcare.com/whitepapers/wp_SBT_retailers.php)

4 Ibid. The average invoice error rate is 3.1 percent for highly automated companies and 4.0 percent for those with a low level of automation

## Increased Revenue

Improving invoice accuracy helps increase revenue by reducing unbilled services, billing disputes and credits. Giving mobile workers the ability to accept check and card payments can also significantly raise their upsell potential. Without check and card payment processing capability, upsell prospects may be limited by the customers' cash on hand. When money for additional products or spare parts, enhanced service or extended warranties does not have to come out of available cash, customers will be more likely to increase their orders. Upselling aside, on-site payment collection helps businesses collect more of what they are entitled to. Customer questions about the invoice or the service performed can often be resolved on the spot to everyone's satisfaction. When questions and billing disputes are handled by the back office, after the fact, customer service representatives may resort to issuing credit or reducing the bill because they lack the documentation needed to collect full payment. As previously noted, service companies that use on-site payment collection have increased their revenues (by an average of 21 percent) more than peers that do not. Upsell potential can take many forms, as the following sections highlight.

## Who Can Benefit From Mobile Payment Collection?

A business does not have to sell products to benefit from mobile payment collection. The process is adaptable and beneficial for many business types, including home delivery companies, field service organizations, home services (e.g. landscaping, pest control, HVAC, painting, inspection and appraisal, etc.), telecommunications companies (cable and satellite TV, telephone, Internet), direct store delivery (DSD) organizations and utilities. Mobile payment collection is also a key component of mobile ticketing for transportation (buses, ferries, etc.), hospitality and entertainment (concerts, festivals, sporting events) applications. Here are some examples of how mobile payment collection can be used.

### Collecting for Products Sold or Services Rendered

This application is obvious, but some of the benefits may not be. The biggest benefit is improved cash flow, the benefits of which are hard to overstate. As noted previously, giving mobile workers the ability to accept payment by cash or card can increase upsell potential, especially for businesses that operate in a cash-on-delivery (COD) environment.

## Selling Extended Warranties and Maintenance Plans

Customers may be happiest with your company immediately after a field service technician made repairs to get a key piece of equipment back into service, or fixed a dishwasher for a homeowner whose sink and counters are overflowing with dirty dishes. This is an excellent time to propose a maintenance plan or extended warranty. With a mobile payment collection system, technicians have the necessary tools to close the deal. Customers can be signed up on the spot, when the value is clear and their satisfaction is high. Some customers also value the convenience of immediate payment and not having to open a bill and mail a check.

### Upselling Services

Payment collection capability helps mobile sales and service staffs to capitalize on customers' desire for immediacy. For example, a customer may say no to installation service when talking to a salesperson in a showroom, but could easily change his mind when a new wall-mounted, large-screen TV arrives an hour before a big game. Mobile automation makes it easy for the mobile worker to upsell this service. Cable companies, satellite TV installers and landscaping services firms have especially strong service upsell potential.

### Mobile Ticketing, Line Busting

Your customers and your business benefit from mobile ticketing and other line-busting applications that are enabled by mobile payment collection capability. Customers benefit because they do not have to spend as much time in line. The business benefits from increased satisfaction, plus reduced chances of losing revenues when customers see long lines and decide to go elsewhere. Mobile ticketing can be used at movie theaters, sporting events, concert and other performance venues, plus fairs, festivals and attractions. Mobile ticketing is also beneficial for bus, rail and ferry lines, tour operators, and many other service, entertainment and hospitality businesses.

- This is just a sampling of ideas, since any business that could benefit from improved cash flow could benefit from mobile payment collection capability.

## What is Needed for Mobile Payment Collection?

It only takes a few basic components to process payments in the field: a mobile computer with a payment application and wireless access, an account with a processing service, and a mobile printer to produce invoices and receipts for customers. Additional components, product features, security capabilities and product certifications may also be required depending on the forms of payment mobile workers will accept and applicable local or national financial laws.

### General Requirements

All equipment used should be designed for mobile enterprise operations. For example, mobile computers and printers should be resistant to damage from drops and vibration, be convenient to carry or wear on a belt or shoulder strap, and support the desired payment and data input methods (e.g. signature capture, magnetic card reader, check image capture). Because devices will process payments and contain customer information, enhanced security features and remote device management capability are highly desirable. That way, if the device is ever lost or stolen, remote device management enables system administrators to lock down access, disable communication and even erase the memory.

There are many more details to consider and features to evaluate to determine the optimal mobile computer and printer for enterprise operations. These will not be covered in this white paper, as the focus is on mobile payment collection. See the **For Further Reading** section for additional resources about mobile device selection.

### Credit and Debit Card Payment Requirements

Accepting debit and credit card payment requires a card reader and payment gateway, and all solution components must meet specific security standards for data storage, encryption and wireless transmission. Here is an introduction to those requirements plus key points to consider.

**Card reader** – Magnetic stripe card readers are commonly available as an integrated option on mobile printers, and are also available as add-on peripherals for handheld computers. Many organizations favor the integrated printer option because it is convenient and ergonomic – the printer is typically worn on a strap or belt, and having the card reader there minimizes the size of the handheld computer; however, compact readers for use with handhelds are available.

If the reader will be integrated with the printer, consider how the printer communicates with the mobile computer. If the devices have a hardwired connection there is nothing more to consider. However, most mobile computers and printers communicate wirelessly via Bluetooth. If you plan to use Bluetooth, select devices that offer the option of encrypting transmissions. Setting Bluetooth to not broadcast the device ID also enhances security.

**Payment gateway** – The payment gateway (which is also referred to as a payment service provider or payment processor) is a service that manages the transaction between the point of sale (i.e. the mobile device) and the financial institution, such as the credit card company or bank. Businesses must establish an account with a payment gateway service, which may have its own security, equipment and process requirements for authorizing card payments.

**PCI security standards** – Regardless of the payment gateway, all credit card transactions must conform to security standards set by the Payment Card Industry (PCI). These standards have been revised and updated several times over the years, which has resulted in some confusion about requirements and whether products are PCI-certified. The four fundamental requirements for PCI compliance are:

- Stored customer data must be encrypted;
- Wireless communication must be encrypted;
- Payment devices must be PCI compliant;
- The entire transaction chain (device, communication, payment gateway, etc.) must be PCI certified.

PCI has many additional, specific standards for encryption, wireless communications and other technical aspects. Technology solution providers experienced with mobile payment are excellent resources for helping to understand the specific requirements and ensuring your systems are compliant with the latest PCI standards.

### Chip Card Payment Requirements

More than 1 billion EMV cards are widely used outside the U.S. EMV is a worldwide consortium of leading card issuers that sets standards for cashless transactions in which monetary value is stored on a chip within the card. There are many types of EMV cards (which are commonly referred to as chip cards, smart cards and chip-and-PIN cards), including contactless versions such as PayPass and cell-phone enabled

payment systems that use Near Field Communications (NFC) technology. Part of the EMV transaction can be processed offline, so mobile workers do not need a wireless connection to accept EMV payment. However, offline transactions are not validated in real time, resulting in the risk of rejected payment.

EMV card issuers have flexibility to issue different types of cards (e.g. contact, contactless, cell-phone based), so hardware and security requirements vary. The general requirements for EMV transactions include:

- An EMV-approved card reader capable of supporting chip and PIN transactions;
- A payment processing application on the mobile computer;
- Secure wireless connection to the transaction processor (optional).

To encourage U.S. adoption, Visa required its U.S. VisaNet acquirer processors to support EMV chip transactions by April 1, 2013. Visa has also been encouraging U.S. merchants to support EMV and is offering incentives to shift transactions from magnetic-stripe credit to chip-based cards. As a result, EMV will likely become much more visible and utilized within the U.S. market over the next several years.

## Check Payment Requirements

Checks have always been problematic for mobile sales and service operations, especially those in consumer (e.g. cable TV, appliance installation and repair, landscaping service, etc.) and small business segments because there has not been a convenient way to verify available funds from the field. Bounced checks and the fees that result have to be considered a cost of doing business. Mobile workers who do accept checks typically deliver or mail them to company headquarters for processing. Checks are often not deposited and cleared until days after they are accepted, so check acceptance has not provided the same cash-cycle advantage as payment cards. Checks can also be lost or damaged while in the field or during handling.

Now field sales, service and delivery workers can accept, verify and deposit checks in the field, in real time. This capability is the result of improvements in imaging technology, wireless coverage and image recognition software. The following components and capabilities are required to process (not simply collect) checks remotely.

- The ability to capture a quality digital image of the check. Standard-grade digital cameras or imagers in cell phones will not likely be sufficient;

- Image processing software capable of reading the check number, bank routing number (ACH number) and account number from the check and converting the images to data for electronic processing;
- Transaction processing software;
- Secure wireless connection to the check processing clearinghouse.

## Conclusion

Businesses can make an immediate and sustainable improvement to their profitability by having their sales, service and delivery staffs collect payment in the field. Mobile payment collection processes cut cash flow delays by days or even weeks, while streamlining invoice processing operations, reducing errors, enabling more revenue to be captured, and reducing disputes, exceptions and uncollected invoices.

Enabling mobile payment collection often does not require a big investment. Modern mobile computers used for mobile enterprise operations are the platforms to support payment by cards and checks. Incremental investments in mobile printers, payment software and services are often all that is needed, and can yield a fast ROI from improved cash flow.

While mobile payment collection processes can have a powerful effect on profitability, they must be implemented carefully. It takes more than collecting customer information to accurately and securely process payments. It is important to work with solution providers who are experienced with both the regulations and standards required for various forms of payment, and the technology tools used to extend transaction-processing capability to the field.

For more than 40 years, Intermec by Honeywell has helped hundreds of field sales, service and delivery organizations automate and improve their operations. In 1969 we introduced the first handheld terminal, and later pioneered mobile printers for route invoicing. More recently, we developed imaging technology and image extraction software that enables mobile check processing and other document processing. Today, Intermec by Honeywell has a complete line of innovative mobile computers, printers and media to support field service, postal and parcel, DSD, route accounting, delivery and other mobile enterprise operations. Contact Intermec by Honeywell to discuss your ideas or to find one of our expert partners with experience with your specific industry or work process.

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## For Further Reading

The following white papers provide a good overview of mobile technology considerations:

- [Top 5 Tips for Choosing Mobile Computers](#)
- [Top 5 Tips for Choosing Mobile Printers](#)
- [Top 3 Questions for Mobile Computer Purchases](#)

For more detailed coverage of functionality, understanding product specifications, product comparisons and purchasing considerations refer to the following:

- [How Ruggedness Reduces TCO for Mobile Computers](#)
- [Future Proofing Your Mobile Computers: How the Features You Select Now Can Protect & Extend Your Investment Years into the Future](#)
- [Understanding and Evaluating Mobile Printer Performance](#)
- [Thermal Printing Cuts Cost and Adds Value for DSD](#)

For other ideas on improving mobile operations and work processes, see:

- [Make Field Service Best Practices Even Better by Leveraging Mobile Technology](#)

### For more information:

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