Lift Customer Loyalty and Sales
with Mobile Queue Busting
EXECUTIVE SUMMARY

Investments in sophisticated, costly customer relationship management (CRM) systems and marketing campaigns to draw customers fail when the customer has a poor experience or finds in-store service lacking. In contrast, simple systems that improve customer convenience—from the retail floor to the checkout line—consistently provide big returns from improved customer satisfaction, loyalty and sales. That is why queue busting is such a consistent and proven tactic for improving the customer experience.

Less time standing in line, or queuing, is a universal benefit that all customers understand and value. Mobile, WiFi-driven transaction systems provide a way for retailers, restaurants, hotels, transportation providers, special event organizers, and other service businesses to reduce queues without adding expensive checkout counters or staff. Automated queue-busting systems use mobile computers, tablets and printers to add speed, security and professionalism to transaction processing operations.

Mobile queue-busting systems can be adapted for many businesses and applications. This white paper provides guidance to decision makers seeking to understand the capabilities and benefits of queue busting by:

- Defining queue busting and how it works
- Describing applications for various industries
- Providing insight and examples from real-world users
- Outlining the labor-saving, cost reduction and customer satisfaction benefits that successful queue-busting systems provide
- Highlighting the components needed to implement queue-busting

THE HOW’S AND WHY’S OF QUEUE BUSTING

A long wait in the checkout line is the last thing a customer expects. The phrase “queue busting” refers to operations designed to reduce the amount of time customers have to wait to receive service. In automated queue-busting applications, a store sales associate uses a wireless mobile device to replicate some of the functions performed at the service counter or point-of-sale (POS) terminal. Store associates use mobile systems to pre-process part of the transaction to save time at the counter, or they complete the entire transaction on the spot so the customer can bypass the counter completely.

Mobile POS solutions typically consist of a handheld mobile device with a payment card reader and a compact, portable printer. Once the store associate swipes the card, the data is encrypted and sent over a wireless network. After the charge is authorized, the shopper signs the screen on the device and the associate prints a receipt on the spot.

Many businesses have found that the average transaction time for customers processed with the mobile queue-busting system is significantly faster than traditional counter operations, which explains why the use of mobile computers, tablets and other devices at the POS is exploding with no end in sight. Consider that major retailers such as JC Penney, Sephora and others announced initiatives in 2012 to use tablets, smartphones and other devices to deliver mobile checkout. Furthermore, mobile technology providers like AT&T have stated that they plan to eliminate all counter and stationary POS systems over the next few years.
WHSmith, the UK’s leading book and magazine retailer—which also operates in airport stores around the world—uses a highly successful pre-checkout application. Implemented just in time to meet the holiday rush, WHSmith reported a 50 percent reduction in customer waiting time, improved sales conversions, and a one percent increase in revenue at the 25 locations where the company deployed mobile queue busting.

WHSmith store assistants equipped with mobile computers and printers scan the UPC/EAN barcode on products in customers’ baskets while they stand in line. After the assistant scans all items with the handheld computer, they use a Zebra® mobile printer to generate a receipt. The receipt includes a text listing of all items, the total due, and a two-dimensional (2-D) barcode that serves as a master record of all the goods in the transaction. When the customer reaches the checkout counter, the cashier simply scans the barcode, and the POS system automatically records all the purchased items. The combined system eliminates the need to scan each item individually.

Customers can make the checkout process even faster by reading the receipt and having their money ready when they arrive at the cashier. The cashier then takes the payment, and an employee packs items into a bag to save even more time.

WHSmith planned and implemented the system in just seven weeks, providing a rapid return on investment (ROI). Checkout counters with mobile queue busting processed between six and 12 percent more customers than those without. WHSmith also documented a reduction in the number of customers who abandoned the queues and walked out of the store without making a purchase. The reduction directly contributed to the one percent revenue increase.

American Airlines, the world’s largest air carrier, selected a unique strategy for its mobile check-in program. The program allows passengers to check in for their flight and receive a boarding pass without ever stopping at the ticket counter. The Zebra mobile printers American Airlines utilizes produce secure boarding passes, checking in customers at curbside and various places within the terminal. The fast check-in helps prevent long queues from forming in the terminal. In addition, printing barcoded boarding passes on receipt stock, rather than costly magnetic-striped card stock, creates additional savings.

Spotlighting its success, American Airlines has won multiple awards for customer service, loyalty and innovation since the company first rolled out the mobile check-in system at select airports. American Airlines discovered that when customers buy newspapers and sundries, airline tickets, and many other products and services, adding queue busting fosters loyalty and repeat business for the overall enterprise.
In the service sector, queue-busting opportunities are nearly unlimited. Consider The Wash Tub, a full-service car wash and detail center with over 21 locations in the San Antonio metro region. The Wash Tub’s mission is to deliver superior service and a unique customer experience, which includes boutique shopping. When management noticed customers waiting too long to pay for services, they sought a way to expedite transactions. In the manual system, customers ordered their service from an attendant and then received a handwritten receipt to present to a cashier, which slowed the line. The company lacked any customer data to understand sales trends and take advantage of upselling opportunities.

The Wash Tub turned to a line-busting solution that leveraged handheld mobile computers and Zebra mobile printers. When a customer drives up, an attendant enters the license plate number into the handheld device. For new customers, the attendant collects the individual’s name and contact information, enters the specific order, and recommends a service. For returning customers, the service history displays on the handheld device. The attendant uses this information to recommend an appropriate service. When a customer goes inside to pay, a cashier simply pulls up the transaction and processes the payment. The computer stores the service ordered, which speeds up each transaction and helps to reduce cashier labor by 15 to 20 percent. Download the complete case study from www.zebra.com.

The retail, travel and hospitality industries were among the first to adopt and benefit from mobile transaction systems. However, businesses can use the systems nearly anywhere queues form, including post offices, gaming establishments, restaurants and event venues. Mobile queue busting also solves the problem of space for retailers who lack additional room to build more checkouts. The sections that follow provide examples of how businesses can adapt mobile queue-busting systems to meet their unique needs.

**Retail**

Fact is, the checkout line is the final opportunity to create customer touch time. When associates are armed with information through mobile technology at the POS, they can help increase sales—whether that’s through upselling related products or pointing out an item the shopper may need with his or her planned purchase. They can also help make a sale even if the item isn’t located in the store by checking inventory in other locations, completing the transaction and giving the shopper a receipt right on the spot. Many retailers can follow WHSmith’s example and experience similar benefits. In addition to increasing sales and reducing queuing, the retailer also reported gains in labor productivity because the pre-scanning process enabled cashiers to process more customers per hour at the registers. The interaction between queue-busting store staff and customers created new upsell opportunities. Besides shortening queues, the application changed idle time spent waiting to revenue-producing selling time. Because queue buster staff has “one-to-one” interaction with each customer, there is also a feeling of added customer care and individual service, which improves the customer experience and loyalty.

Electronics Boutique, an international video and computer game retailer, implemented a different style of queue-busting application to maximize space in its small, crowded stores. Queues often spilled out of stores during the holiday season, making it difficult for shoppers to reach merchandise. Its queue-busting application provided complete payment processing so customers never had to reach the checkout counter.
Electronics Boutique chose Zebra mobile printers with integrated credit card readers for staff to wear on their belts during peak activity. The printers connected to a wireless handheld computer that associates used to scan barcodes on merchandise and run a mobile POS application.

Customers presented their credit card for payment and swiped the card through the card reader on the printer. The encrypted information transmitted securely over a wireless LAN to the store transaction processing system for authorization. The system processed authorizations in seconds, and the clerk completed the checkout transaction. After implementing the system, Electronics Boutique processed more customers per hour and saw a corresponding lift in sales. In addition, the retailer benefited by having its employees on the store floor to answer questions, rather than stationed behind a cash register.

Retailers can further improve the ROI from their mobile transaction systems by using a mobile printer that also supports label printing. In this case, the printer supports multiple applications such as shelf labeling, inventory inquiries, and item marking on the retail floor, as well as receiving, inventory counting, and other back-room applications. Mobile transaction systems can also benefit businesses not typically burdened by long queues. This is because the systems save valuable store space, make staff more efficient, and add the convenience of processing bulky items, customer returns, or special promotions with minimal changes to store layout and operations.

**Fast Food**

Fast food and other quick service restaurants can use queue-busting systems to process customer orders and payments more quickly. When queues grow, personnel equipped with wireless mobile computers and printers come out from behind the counter to take orders while customers at the front of the queue wait for their orders. Mobile workers wirelessly transmit the order to the kitchen and print an order pick-up ticket. The ticket includes a barcode summarizing the order and the amount owed, so customers can have their money ready upon reaching the counter. There, they present the ticket and payment and quickly receive their food.

One way the process saves time is by requiring the customer to make their food and drink decision while standing in the queue, as opposed to at the counter. Variations of this application also applies at sporting events, concerts and other entertainment venues where queues form quickly and customers are impatient to return to their seats.

**Wagering**

The time-saving performance of mobile transaction systems can increase revenues for operators of racetracks, off-track-betting (OTB) parlors, and other wagering facilities, where customers stuck in a queue when the race starts represent lost revenue. With handheld computers and mobile printers, staff members work the queues to reduce the congestion, service customers at their seats, or accept wagers throughout in the facility. The wager records in the mobile device and transmits instantly to the facility’s central system over a wireless network. The mobile printer then produces a secure betting slip to complete the transaction. Autotote, which provides the most-used wagering system in the world, reports increased revenues from its new mobile transaction processing system featuring Zebra printers. Casinos and other facilities can modify the application to make many types of wagering more convenient.

**Travel and Transportation**

The successful American Airlines mobile check-in system described earlier is only one example of the several different ways travel and transportation industries can use queue-busting systems. Train, bus and ferry operators can reduce congestion at terminals by printing transportation tickets, baggage tags and claim tickets anywhere, on-demand. The same mobile computers and printers used to create tickets and passes enable POS operations for on-board food and beverage and duty-free sales.

Accepting payment cards and issuing receipts with mobile printers—and recording sales with handheld computers—improves the convenience, professionalism and accuracy of mobile sales operations. Equipping transportation workers with mobile computers and printers during travel provides them with the means to check schedules for passengers and sell tickets for future travel, helping make the most of their time.
Queue-busting applications require a mobile data collection device for capturing and accessing information, application software to process transactions and provide information, and a mobile printer for creating secure receipts, tickets or other documentation. Many queue-busting systems also include a wireless connection to databases or other software stored on a central host computer, although real-time connectivity is not required. Applications can run independent of the host on the mobile equipment. A wide variety of mobile computers, tablets and printers are available to suit user needs and preferences, and service providers can custom-develop application software to meet specific requirements if no off-the-shelf package exists.

MOBILE COMPUTERS AND TABLETS

Mobile technology, like computers and tablets, deliver an improved customer interaction that helps make a statement. Shoppers look for retailers who make it easy to find the product they want, when they want it. They also want to check out quickly and hassle free. While the types and capabilities of mobile devices to meet these demands are too numerous to fully cover here, some of the most important features to consider for mobile queue busting are ergonomics, the printer interface, communications capability and input methods supported.

Mobile devices range in size from smart phone-style handheld devices to full-screen tablets workers can carry by hand, clip to a belt or holster, or wear directly. The device must be lightweight enough to use comfortably throughout the shift and have an easy-to-read, intuitive display. Obtrusive devices that are difficult to use will slow operations on the store floor, creating frustration for customers and workers alike. To further ensure ease of use, businesses must carefully consider the connection between the mobile device and printer. Bluetooth® technology is common for short-range wireless applications because it improves productivity and ergonomics by eliminating cables that can become tangled, disconnected or broken.

Mobile devices should also support a wide range of data input methods including a combination of key entry, barcode scanning, magnetic stripe or smart card reading, RFID or speech recognition. Digital pens and touchscreens can accept handwriting and digitize customer signatures, which creates a paper trail while enhancing the customer experience.

Another feature to consider when selecting mobile devices is Voice-over-IP (VoIP). This technology turns the device into a mobile phone, offering even more possibilities to improve queue busting. For example, an airline employee could check in late-arriving passengers at curbside, and then make a call to notify the gate agent of their arrival. Retailers could add VoIP to their mobile POS devices so clerks could assist customers by calling the stock room or other stores to check on item availability and print a claim ticket or rain check on the spot.
Workers can wear mobile printers on a belt or shoulder strap and optimally connect to other systems wirelessly. Printers with native wireless support offer superior convenience and flexibility. The radio is factory-installed inside the printer and matched to the user’s wireless network. Zebra Technologies offers its customers flexibility and security by supporting all the leading wireless networks used in commercial operations.

Mobile printing solutions from Zebra feature a wide range of wireless options through modular hardware, enabling anywhere, anytime communications. Businesses can choose the wireless connectivity that best suits their needs, including medium-range (up to 100 feet) 802.11a/b/g/n, short-range (up to nine feet) Bluetooth® 2.0, or IrDA (line of sight infrared). Because Zebra printers support multiple wireless security and encryption standards, businesses can feel confident that their networks and critical data remain secure.

The overwhelming majority of wireless public “hot spots” for Internet access use 802.11b/g technology. This infrastructure is reaching saturation, creating opportunities to use wireless LAN-enabled printers and computers for queue-busting applications in public and outdoor environments, including campuses and entertainment districts.

In addition, Zebra mobile printers are designed with common language support allowing users to print using the same commands as their existing or legacy Zebra tabletop or desktop printers.

**Ergonomics Drives Ease of Use**

Zebra mobile wireless printers are lightweight, easy to use and durable. Many businesses already use wireless handheld computers for inventory, shelf-price auditing and other applications. By complementing these devices with a mobile printer, businesses can leverage their initial wireless investment and take advantage of a wide range of cost-reduction and queue-busting opportunities.

In queue-busting applications, associates typically use mobile printers in conjunction with mobile computers or tablets. The mobile device usually runs the application and serves as the wireless connection to the store network, with no direct printer connection to the network. The printer receives its commands from the portable computer or tablet through a Bluetooth or IrDA interface.

Zebra printers are available in a variety of form factors that meet the needs and preferences of each mobile workforce. Mobile printers must be comfortable and easy to use or they will not deliver productivity benefits. While overall weight is important, balance, grip and ease of carrying and operation remain vital. Several options exist for mobile printer portability such as belt clips, shoulder straps, and carrying cases of varying materials from waterproof to lightweight nylon.

**Long Battery Life Means High Shift Availability**

How the printer manages its power supply impacts overall battery life and application effectiveness. Battery life varies widely based on printer usage. Print volume, label size, the amount of wireless activity, and other factors all affect how long batteries last before recharge or replacement. It is critically important in queue-busting applications to have enough battery life to power computers, tablets and printers for the entire shift, or workers cannot complete their daily tasks.

Users must test their applications to ensure that the batteries they use consistently perform as needed and will not contribute hidden expenses to the total cost of ownership. For example, nickel metal-hydride (NiMH) batteries have a higher initial cost than nickel cadmium (NiCAD) products, but they have less performance degradation over time, are more efficient at holding their charge, and have a longer life span. Lithium-ion (Li-Ion) cells offer the highest power-to-volume and power-to-weight ratio of the three. For example, in a typical printer application, a Li-Ion battery pack producing 7.2 volts has 30 percent more power than an NiMH pack, with half the volume and half the weight.
Saving time is a proven, powerful tactic for improving the customer experience, which builds loyal and profitable customers. From the service sector to the retail world, long lines and wait times are typically the biggest customer complaint. Mobile technology delivers far-reaching benefits, quickly, efficiently and securely. By harnessing mobile technology, businesses can keep the queues flowing, create multi-channel selling opportunities and put a smile on the customer’s face—a surefire way to improve the bottom line.

A global leader respected for innovation and reliability, Zebra offers technologies that illuminate organizations’ operational events involving their assets, people and transactions, allowing them to see opportunities to create new value. We call it the Visible Value Chain.

Zebra’s extensive portfolio of marking and printing technologies, including barcode, RFID, GPS and sensoring, turns the physical into the digital to give operational events a virtual voice. This enables organizations to know in real-time the location, condition, timing and accuracy of the events occurring throughout their value chain. Once the events are seen, organizations can create new value from what is already there.

For more information about Zebra’s solutions visit www.zebra.com.

Save Money on Paper Supplies and Media

Mobile printers can print text, logos, graphics and barcodes on durable receipts and labels of different sizes and thicknesses—including RFID tags—and many have integrated magnetic stripe readers for payment card processing. Most models accept a variety of label, tag, ticket, and other media for producing durable receipts, invoices, return labels, inspection labels, security marks, and other labels. Top-coated media resists ultraviolet light and remains readable for years, eliminating receipts that fade. Many types of liner-less media also exist, which eliminates the waste and disposal problems associated with peel-away liners used with adhesive labels.