

Mobile POS Proof of Concept Best Practices

A WHITE PAPER BY DAVID HAWKINS AND JOHN KENNEY



Mention mobile Point-of-Sale (POS) to many retailers, and you are likely to encounter confusion, fear of failure, a horror story about implementation or integration, or a combination of all three. Yet there is probably not a single retail or other customer transaction-based enterprise not considering some form of mobile POS application. From big boxes to co-ops, from banks to restaurants, the convergence of hardware, software, high-speed network proliferation and customer demand is pushing retailers for rapid deployment of mobile POS technology. In this White Paper, we will discuss what we have learned working with major retail brands and consulting groups as they plan and deploy mobile POS proof-of-concept (POC) programs.

While no single retailer has a solution that's right for the entire industry, some common ground that every mobile POS rollout seems to share includes setting goals and value propositions, selection of operating systems (OS) and hardware, metrics definition and calibration, and the timing, size and location of trials. We'll discuss the role that customers themselves play in defining the deployment parameters, as the consumerization of POS hardware and applications continues to drive retail IT decisions. And, perhaps most importantly, we'll share our perspective on facing the "unknowns" associated with mobile POS implementation - and the benefits some of our customers have gained from moving quickly, validating their findings and building on their experience as they keep deploying.

Increasing basket size and raising customer satisfaction levels

When you take into account the lack of a well-known and proven implementation path, and the fact that every retailer is different, why even go to all the trouble of planning and deploying a mobile POS? A major retail-consulting group says that the motivation is pretty simple: retailers are seeing positive results from some highly publicized deployments - and don't want to get left behind. The experience of a major home improvement retailer with their mobile POS deployment is typical of this trend, where their results included reduced labor units, increased basket size and raised customer satisfaction levels. How? With a mobile POS application, an associate or a customer can check on recommendations, availability and prices of items right in the aisle. Either an associate can recommend products in the store that might be needed for the project,

or customers can find suggestions online. The customer does not have to struggle to a register with a bulky item. Instead, they can check themselves out of the store. This type of interaction and service was impossible before their mobile POS rollout.

Cost effective transaction set-up and capability through mobile POS

New trends such as pop-up retail with temporary locations, holiday stores, special events, etc. can be very costly to set up and enable transactions using a traditional POS model.

With a mobile POS system, all transactions can be completed over 3G using the retailer's or the customer's hardware, reading and writing to the enterprise database. While these are all good retail drivers, it is also true that with the proliferation of smartphones, customers themselves are demanding mobile transactions for the convenience and time savings offered. Retailers who don't empower their customers and their associates via mobile devices risk facing a slow erosion of sales to savvy customers, as well as the hurdle of battling competitors already rolling out their mobile POS solution. So if the question isn't "if" but "when", what's the best way to get started?

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First things first – goal setting and value proposition

While every retailer is different, it's natural to want an understanding of the expense and the endgame before you sign on. At the end of the day, improving the customer experience and increasing the basket size no matter what the channel or POS method remains an ultimate goal of retail. How these goals overlay your operation will vary, but there remains a front-end opportunity to identify some value propositions based on customer satisfaction, cost and profit. From our observations, the greatest potential for mobile POS value will come from three areas: better labor utilization, hardware savings and bigger basket size. Softer benefits related to overall customer experience, associate empowerment and "coolness" factors may be a little harder to measure, but will also contribute to the benefit side of the equation.

Labor utilization: More efficient labor utilization should comprise an aspect of goal setting as well as contribute to the value proposition. Depending on store size and configuration, a mobile POS solution can eliminate one or more checkout positions and, at the same time, increase customer satisfaction with POS (line busters, self-checkout, etc.). Additionally, the ability to assist the customer at the point-of-decision and to enable suggestions of associated items and potential upsell products makes each associate more productive. Empowering associates with the same data search options as those enjoyed by the customer will also assist to keep associates close to the customer, rather than force them to access a remote workstation in order to answer a price or in-stock question.

Hardware savings: Mobile devices and thin client registers are cheaper to purchase and to maintain than typical registers. And in cases where the customer is self-checking out, the cost and maintenance of the transaction hardware has actually been transferred to the customer.

Basket size: Increased basket size is due to several factors. In the Home Depot rollout, for example, associates were able to assist shoppers to find and purchase related items in the aisle. Urban Outfitters uses their mobile application to cross and up-sell customers in store, in a similar fashion as the Apple Store model. A mobile basket can also be channel independent, enabling a web shopping list to travel to a retail store for final purchase decisions and delivery options – from the store, or direct to the consumer – for a true cross-channel shopping experience.



Software, hardware and middleware – keeping your options open

The choice of OS and hardware is what keeps IT up at night, and causes the most passionate arguments during planning sessions. Terms like “retail hardened”, “consumerization” and “cost-oriented architecture” are thrown into these discussions with reckless abandon. Making any decision that will restrain future direction is bound to be short sighted, no matter how strong one’s conviction is today about

a particular OS or architecture. One caveat is to stay flexible and open when it comes to platforms. Having said that, let’s take a look at some of big decision points that will arise when planning a mobile POS POC.

When considering centralized transactions and services (even without taking mobile applications into account), the option of cloud-based services should be a part of your consideration. A vendor partner who can provide the option of “playing in the cloud” will let you test drive transaction applications before deciding to make a wholesale commitment. There is no need to feel like any decision you make has forced you into a box canyon with no easy way out.

Choice of OS will also come up. Rather than insisting upon one OS or another, one hardware platform or another, an OS, device and channel agnostic approach may pay bigger dividends. This is the thinking that guided a major retailer in their rollout of a mobile front end. With the heavy lifting done by the back end, not on the device itself, they were free to explore new hardware and application options as they become available.

While we’re on this subject, the selection of thin client versus traditional register technology will need to be worked through. For a major home improvement chain, a mobile middleware solution was used to develop a business intelligence application that connects to their centralized data warehouse, providing core business data at the SKU level, on the fly right to the associate in the aisle.

One of the drivers we see in favor of thin client and cloud technology is the relevance to new retail formats such as pop-up retail, stores-within-stores and special events. Mobile POS easily enables these locations to perform secure transactions for minimal cost. With less processing power in the store, less software, less maintenance and full PCI Data Security Standard (PCI DSS) compliance, a thin client mobile solution provides flexibility and cost-savings.

Finally, a challenge we see for many retail IT staff is the disconnect between what smartphone retailers and their vendors plan to support versus what smartphone consumers plan to buy. In study after study retailers reinforce their commitment to development on a Windows Mobile platform, while, at the same time, consumers are showing virtually no movement to Windows Mobile devices. Rather than committing to a smartphone OS, a wiser course will be to find a vendor who can provide an OS agnostic environment, again keeping your options open.



Metrics that matter

While the time scale of a POC deployment may not be long enough to gain data on trending, it is possible to gather snapshots of various criteria to enable gauging the impact of mobile POS.

The important thing is to figure out what you want to measure before starting the trial, and building the measurement mechanisms into the deployment. Recalling our major sources of value – labor utilization, hardware costs and basket size – and ensuring that we identify and agree upon associated metrics, needs to form a part of the POC planning checklist.

Labor units and efficiency are simple to measure. In some retail organizations, the elimination of a single labor unit for customer transactions can result in seven-figure savings over the course of a year. Hardware costs are also fairly simple to measure. Potential for complexity will arise when comparing projected hardware costs to legacy costs, and over what period of time backwards and forwards the comparison is done. The deployment of thin client devices and the use of customer devices for some transactions may represent a new hardware cost paradigm moving forward, in which case there will not only be permanent cost savings, but also opportunity for reallocation of hardware expenses. Additional complexity may arise in projecting costs associated in moving from the capitalized expenses of the old network to the operational expenses associated with a centralized, cloud-based deployment. Basket size is another trend-based metric that may take some time to gather. However, comparisons to the same season/date as previous years will provide a good picture of the trending direction. One of the consequences of a successful mobile deployment is unchaining the customer and associates from the cash wrap. This can result in increased opportunities for customer “touches,” with the benefit of higher close rates.

Scheduling and scaling

From our observations of successful and unsuccessful POC deployments, probably the single most important guideline would be to move ahead and not to hesitate. Retailers that insist on total package functionality to go live will miss the boat. Rapid deployment without perfection is more prudent than slow deployment of perfected applications. An enterprise that waits until every piece of the puzzle appears to be in place will suffer from never being ready.

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When considering how many locations to trial, 2-5% of total locations should provide a statistically valid sample for decision making. If there are large variations in demographics and geographic locations, ensure that your rollout includes enough diversity to be a true reflection of the real world. Trials by their nature should be agile. They should also provide enough data points to provide the business intelligence needed for go/no-go decision making, and provide direction for enterprise-wide deployments. The home improvement chain pilot program, for example, took six months. However, the program was so well deployed and managed that the actual full-scale roll out of tens of thousands of mobile devices to their 1,970 U.S. stores took only two and a half months.

Letting the customer drive

We are in a push for customers to drive. Customers are looking for a cross-channel shopping experience that can encompass the digital shopping cart, combining all channels from in-store to at-home to mobile that can be saved, comparison shopped, recommended, stock-checked and purchased/delivered as and when desired.

Keeping pace with consumer technology is also a big drive. Disconnects still exist between the retail mobile POS planners, and the reality of the customer's world. We routinely hear Tier 1 retailers stating that the Apple and Android OS are not “retail hardened”, yet survey after survey of consumers indicates that these mobile devices and their associated OS will continue to dominate the smartphone market for the foreseeable future. One of the biggest mistakes a retailer could make is to believe they know what's best for the customer, and not the other way around. The mobile POS solution therefore needs to allow application build out on any mobile device OS no matter what hardware and OS has been selected for store associates. In addition, we strongly advise that for every associate facing application, a customer facing application also be developed.

Summing it up

We hope that the preceding observations have been helpful in your mobile POS POC planning process. The important points to remember include:

- Don't wait for the perfect plan. There isn't one;
- Stay flexible;
- Move quickly, validate, and keep moving on based on what you have learned;
- Be OS and hardware agnostic;
- Use the POC as an opportunity to “play in the cloud”;
- Plan what metrics you will be gathering ahead of the deployment;
- Empower not only your associates, but also your customers;
- Did we say don't wait?

Mobile POS presents a unique opportunity for the retailer to take a fresh look at how a customer transaction should flow. Instead of continuing on a path of “that's the way we've always done it”, a mobile deployment allows the retailer to go in and challenge the status quo – with the possibility of reinventing the entire customer experience in novel and engaging ways.

In the UK, 25% of grocery store transactions are mobile. Ahold, Food Lion and Kroger are all deep into trials and rollouts, with Costco in the planning stage. Other notable deployments in various stages of rollout include Starbucks, Apple, Home Depot, Nordstrom and Kroger. Good data is publicly available to help you determine the right way and the wrong way to trial mobile POS in your organization. Most importantly of all, get started - because your customers are not going to wait.

Author bios

David Hawkins has 15 years of experience in POS development including hands-on experience with Fujitsu. His first-hand experience includes helping develop and design Fujitsu's “Istore” POS Product. Hawkins has the unique experience of designing a POS that has been running in production with a retailer for over 14 years. As Lead POS Developer, Hawkins designed POS systems for several major retailers, including Best Buy, REI, Nordstrom, Kmart and others. Hawkins has designed and developed .NET SOA-based POS mobile solutions for Stella Nova's clients and products. He holds a BS from North Carolina State University.

John Kenney has over 20 years of retail and retail IT experience. Kenney has experience directing POS and returns capability for a Fortune 50 retailer, directing POS and store system outsourcing and offshoring initiatives, and managing global IT delivery teams. He has worked with companies such as Best Buy and Accenture. His additional skills and experience include POS consulting and advisory, and sales development with retail business intelligence and analytics. Kenney holds a degree in Computer Information Systems from the University of Wisconsin.