



CASH TRANSACTIONS IN A MOBILE WORLD

A DEALER OVERVIEW

Introduction

For two decades, the PC has reigned supreme over POS solutions, operating as point of sale terminals that sit on counters and control various peripherals. However, the need for PC-centric solutions is waning as a more flexible POS model emerges. Leveraging cloud and mobile technologies, this model supports thin client and IP-enabled components such as cash drawers and printers.

The new model is more affordable, flexible and manageable, and significantly improves the shopping experience. It's a mobile world, after all, and tying the cash drawer to fixed POS stations no longer makes sense in settings where retailers want to offer the convenience of completing transactions at the "point of decision" — literally the place in the store where the customer gets the item and makes the decision to purchase — instead of making

shoppers stand in line at a counter.

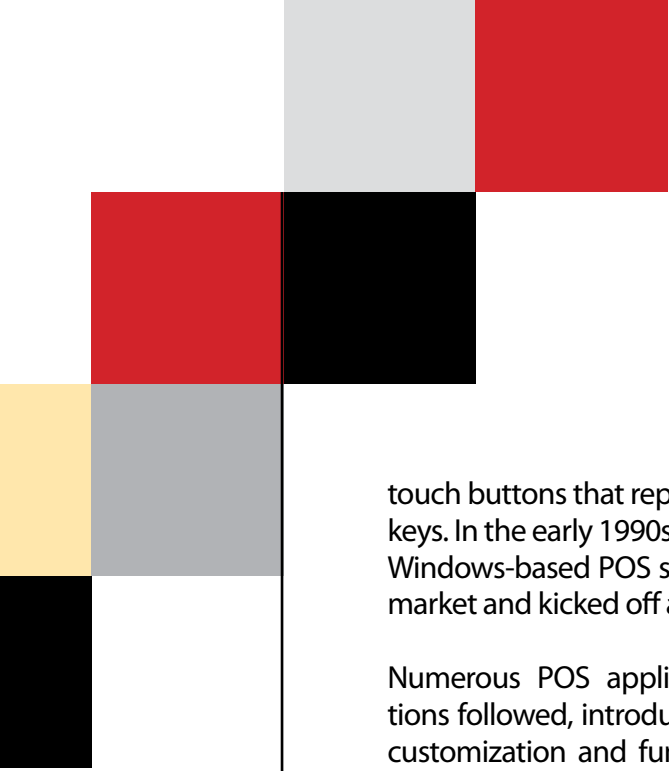
POS dealers stand to benefit from this new model, and the vast opportunities it creates to add value for customers in retail, restaurant, hospitality, and other verticals that use cash transactions. The model generates a new revenue stream and the opportunity for dealers to reinforce their roles as trusted advisors. Savvy dealers that embrace the model will jump in early on what is sure to be a dominant POS trend.

From Cash Registers To PCs

In the early 1970s, computerized POS solutions started replacing the cash register, a 19th Century invention that is now more likely to reside in a museum than a store counter. In the 1980s, IBM introduced proprietary PC-based solutions. Early POS solutions were ROM-based systems created by NCR, DTS, and IBM with

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touch buttons that replaced cash register keys. In the early 1990s, the first Microsoft Windows-based POS system entered the market and kicked off a POS revolution.

Numerous POS applications and solutions followed, introducing new levels of customization and functionality specific to the needs of retailers, (big-box, specialty, boutique or mom and pop,) and hospitality (QSR, table service and fine dining). At the center of the typical POS solution is a fixed PC-based station equipped with a cash drawer. The station controls various wired peripherals — printers, barcode scanners and payment card readers — connected to dedicated ports on the POS station through serial or USB interfaces.

The PC for years has remained at the center of the solution, effectively serving as a computerized cash register and controlling the various peripherals. In multiple-workstation environments, POS stations connect to a server at the backend. These typical setups can be costly, especially for smaller retail shops, and in some cases require a fair amount of configuration.

POS Game Changer

Today, a tablet revolution is taking place, with the Android, iOS and Win8 operating systems leading the way. The days of the “fat client” PC-centric POS solution are numbered, thanks to cloud computing and the increasing capabilities of mobile



devices such as tablets and smartphones. A recent Boston Retail Partners study found retailers view mobility as a priority, with 52 percent planning to implement a mobile POS solution within two years. Another 19 percent said they plan to deploy mobile solutions in two years or more.

Thanks to the Internet, consumers are accustomed to shopping in the convenience of their own home, and they want convenience at retail locations as well. Retailers realize they can and need to improve the shopping experience by leveraging cloud and mobile technologies. Why make customers queue up at a counter when you can complete a transaction at the point of decision? For example, a sales associate can initiate a transaction on a tablet in a dressing room, accept a credit card or cash, and complete the sale at a strategically placed cash drawer for a mobile checkout experience. Using the tablet, the associate can complete the transaction and print or email the receipt. Shoppers who enjoy convenience and

speed leave the store happier and are more likely to return for future purchases.

This level of convenience and flexibility is hard to achieve with a POS system constrained by fixed workstations. If components such as cash drawers, printers, and barcode readers are IP-enabled and communicating wirelessly, there's nothing stopping a merchant from offering this kind of flexible service. Store clerks can run transactions from thin-client tablets or smartphones. Where required, security cameras and digital signage displays can be integrated into the POS system, creating a compelling and secure customer experience



POS systems with thin clients and IP components aren't for every setting. Big-box retailers, category killers and supermarkets will continue to need fixed check-outs, but they can leverage mobility in specialty departments, such as shoes, electronics or specialty wine/cheese. In boutique and specialty shops, where a lot of interaction takes place between clerk and patron, this new model is sure to gain traction.

Affordability And Familiarity

The new, thinner POS model is a viable

alternative for deploying fully functional POS systems that are far more cost-effective than the traditional POS. Though prices vary, a typical "fat client" POS workstation costs around \$3,000. A five-unit rollout would cost \$15,000, a hefty price tag for a small retailer.

In comparison, a five-unit deployment with \$400 tablets costs under \$2,000, and the units are easier to use and have a lower replacement cost. Of course, components such as cash drawers and printers carry their own price tags, but being IP-enabled, fewer are needed because they can be shared. Assuming two IP printers and cash drawers are deployed, the cost of the same five- "station" POS system would be closer to \$3,000.

Besides lower costs, IP-enabled POS systems have another advantage — familiarity. Users of tablets and smartphones require less training for similar devices in the workplace. Furthermore, a mobile POS lets retailers stand out from the competition by improving the shopping experience, translating to higher customer loyalty.

New Profit Stream For Dealers

While the emerging POS model may appear as a threat to the business models and revenue streams of today's POS dealers, in reality it increases revenue and value-add opportunities. POS dealers aggregate components and software systems from various suppliers to build solutions that meet the specific needs of their customers, who consist of merchants, restaurateurs, and hospitality operators.

Customers are now attuned to the new POS model, and as they see its benefits, they are demanding it from their dealers. Customers don't like to change suppliers, unless they absolutely have to, so they will expect their POS dealers to deliver affordable, scalable, reliable, and secure solutions that leverage new technologies to make shopping more convenient and flexible. Dealers who cannot support the model risk pushing their clients to the competition.

The new model, "thinbility," combines thin client, mobile, and cloud-based technologies. To leverage it, POS dealers must become proficient and conversant in networking systems, with particular focus on wireless Ethernet (Wi-Fi) networks. Dealers need to know about IP-based systems so they can link thin clients wirelessly with IP-based cash drawers, printers, and payment terminals. They must develop the skills to install and integrate POS solutions with ancillary applications, such as security and digital signage, and make all of the IP-enabled components in a unified POS system work together.

These systems will free merchants, restaurateurs, and hospitality operators from the constraints of the PC-centric POS approach, which no longer meets the needs of an increasing number of users. Diners, shoppers, and hospitality guests use the Internet to shop and make reservations. Whether at home or on the run with their mobile devices, they've grown used to having information at their fingertips to complete transactions quickly. They want that experience duplicated at retail locations.



POS dealers that can help merchants provide this enhanced experience to users will stand out from the competition. They will jump in early on an emerging model, and that will help them fight commoditization.

Service Opportunities

New service opportunities created by cloud computing and mobility ensure long-term customer engagements. Successful dealers understand that engagement doesn't end after installation and user training, so they find ways to keep the customer engaged through long-term post-installation services that generate recurring revenue.

For PC-focused dealers, the challenge becomes how to shift the business to a service-centric, recurring-revenue model — a model that has been very successful in some areas of IT. Typically it involves adding remote monitoring and maintenance solutions and services that generate revenue through Hardware-as-a-Service (HaaS) and Software-as-a-Service (SaaS) contracts. POS dealers can also add credit processing, which is a natural fit. Dealers that make this transition successfully stand to increase their profitability. Dealers new to the space with no background in PC-centric solutions will be able to bypass the

adjustment challenges that legacy dealers need to surmount.

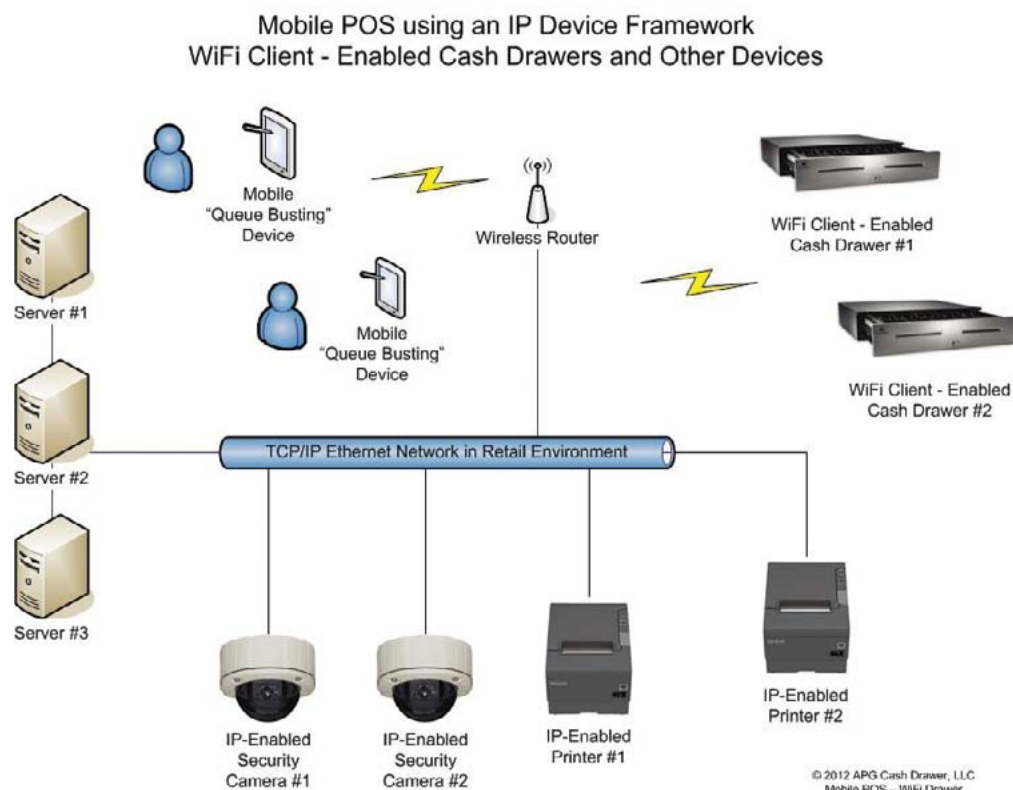
IP-enabled POS solutions, with their remote monitoring and reporting capabilities, are ideal for long-term customer relationships. Stand-alone IP-based cash drawers come equipped with controllers that make them not only IP-ready, but also programmable for a range of functions to give businesses much greater control over cash drawer use.

The cash drawers' capabilities enable exception management and alerts that prevent misuse and notify managers of unusual events. If a clerk opens the drawer manually with a key, even though a command from the workstation would normally open it, the system captures that activity. By reviewing the informa-

tion, managers can determine if the exception was legitimate or ill-intended. Further monitoring is available with time-stamp processing. A cash drawer that remains open for a long time can indicate a security or training issue. A timely alert sent to management via email or text can solve this problem fast.

Controllers also record when a drawer is unplugged or moved — or if it is opened by someone who is assigned to a different drawer. To prevent that, drawers can be programmed to open only for authorized employees. Exceptions can be instantly reported to management for corrective action.

IP cash drawers collect lots of valuable data that helps correct bad habits and





make operational improvements. Dealers can turn this data into revenue-generating services by delivering it to customers as status reports and recommendations for improvements and best practices. The offering can become part of an overall remote services package, and it's an ideal way to strengthen the trusted advisor role.

APG IP-enabled Cash Drawers

IP-enabled cash drawers are fundamental to the thinbility approach, releasing businesses from their dependence on expensive PC-centric systems and delivering new levels of functionality to any environment where cash transactions take place. APG Cash Drawer LLC leads the industry in IP-enabled cash drawer innovation, offering multiple configurations, sizes and colors for use in a range of industries, including retail, hospitality, restaurants and convenience stores.

APG's fully customizable IP drawers APG IP-enabled drawers connect to other sys-

tem components via wireless and wired Ethernet. The APG NetPro Model 480 series supports WebSocket Protocol and API methods, making the drawers compatible with browser-based applications — a feature tailor-made for retailers interested in managing systems through a web interface.

NetPRO cash drawers capture and store transaction data that helps identify security issues and determine if cashiers are properly trained. Programmable features and reporting capabilities in APG's IP-enabled cash drawers create a wealth of recurring-revenue service opportunities for POS dealers, helping them to add value and boost profits.

Conclusion

The future of POS is mobile and thin. Wherever cash transactions take place, IP-enabled cash drawers linked wirelessly to other IP components will ensure that the POS is flexible and convenient. APG can help POS dealers leverage this paradigm shift to open new revenue streams and add value for customers.

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About APG Cash Drawer, LLC

APG manufactures a broad range of high-quality cash drawers and other related products for thousands of customers throughout the world. During its 35+ year history, APG has built a reputation as the supplier of choice for highly durable and dependable cash drawers. To learn more about APG products, visit <http://www.cashdrawer.com> or call 763-571-5000.