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Next Generation POS: The Role of Cash and ePayments

HOW TO MATCH A CASH DRAWER TO YOUR RETAIL ENVIRONMENT

Mobility and payment are hot topics in retail, With tablets making major inroads into store environments and mobile wallet finally gaining traction, transactions can occur anywhere increasing convenience for customers and giving retailers exciting new options for point of sale.

Missing from the mobility hype is a simple fact: Cash remains king for many consumers. Retailers must be prepared to accept payment in whatever form the customer wants, or risk losing the sale. Experts say cash will remain a popular choice among consumers for quite some time to come.

The good news is there are many ways to incorporate cash acceptance into every type of retail operating environment, from traditional front-end cash-wrap stations to the most

modern all-mobile settings. Solution providers can help customers innovate with new approaches to POS, while assuring them they can accept and secure cash in strategic locations throughout the selling environment.

To make sure these environments succeed, solution providers must understand how to match the cash drawer model to the rich range of retail operating environments now possible. Ensuring a successful deployment means specifying the right array of POS devices and peripherals to support today's more dynamic, flexible style of retail.

With knowledge of the right peripherals to support any environment, solution providers empower retailers to reimagine the way they deliver the brand experience and engage with customers.

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APG CASH DRAWER®

CASH PERSISTS

While much industry attention right now is focused on card-based and other electronic forms of payment, the fact is that cash still accounts for the largest percentage of consumer transactions: 40%, according to an April 2014 report from the Federal Reserve System's Cash Product Office, *Cash Continues to Play a Key Role in Consumer Spending: Evidence from the Diary of Consumer Payment Choice*. That's more than twice as much use as credit, at 17%. A quarter (25%) of transactions are via debit, 7% via check and 7% are via electronic means such as online banking bill pay and bank account number payments. The remaining 5% are enacted using other methods.

"Cash plays a dominant role for small-value transactions, is the leading payment instrument for many types of purchases, and stands as the key alternative when other options are not available," according to the report.

The Federal Reserve found cash is the favored payment method for gifts and other transfers between people; food and personal care supplies; entertainment and transportation; medical, educational, and personal services; and government and nonprofit expenditures. In fact, 60% of cash transactions are for food and personal care supplies. Even in general merchandise purchasing, cash and credit use are almost equal, at 29% and 30% of transactions, respectively, and both outpace debit at 22%.



Missing from the mobility hype is a simple fact: Cash remains king for many consumers

Consumer segments differ by how they use cash, but not in the way many assume. Overall, thirty percent of consumers call cash their payment instrument of choice, dwarfed only by debit cards at 43%. Contrary to expectations, the generation most inclined to use cash first are 18- to 24-year-olds – 40% prefer it, while 51% prefer debit and 7% credit. Just

under a third of adults from 25 to 54 prefer cash. Low income people are the heaviest users of cash, 55 percent of consumers with household incomes less than \$25,000 per year prefer cash over non-cash payment instruments, while those households making more than \$200,000 per year exhibit a very strong preference for credit cards, according to the Federal Reserve. Many consumers like the anonymity of cash, as well as its use in budgeting.

Retailers have their own incentives for handling cash. According to the British Retail Consortium's Retail Payments Survey, 2013, the cost per transaction for cash is a fraction of the cost of a credit transaction, and that cost declined 38% over a five-year period compared to a 18.3% increase in the cost of credit and charge card transactions, and a 3.8% increase in debit transaction costs.

Perhaps for that reason, some businesses offer discounts for cash. Gas stations are big adopters of this model. But it is also seen in businesses offering high-ticket products and services. Research by industry organization Currency Research, *The Case for Cash, 2014*, found many retailers actively promote cash payment in their stores, due in part to fee disputes with card associations. The report also casts doubts on the propensity for mobile payments to displace cash. "Now that identity is the new currency, ongoing predictions that cash will be replaced by other payment methods have missed the point. Consumers are growing more and more concerned with the security of their personal information. Cash simply has no replacement when it comes to safety and security."

In short, cash is not going away anytime soon. The Federal Reserve predicts that cash will grow an average of 1.7% per year from 2012 to 2022.

“Currency Research believes that cash in the form of banknotes and coins will be in widespread use for generations to come,” the organization’s report concludes. “Cash has no obvious replacement in sight.”

A CASH DRAWER FOR EVERY ENVIRONMENT

Insights into the demand for cash payments are critical to consider as new payment technologies take hold that affect the POS environment.

Mobility has made a huge impact on POS, with new form factors and wired and wireless communication protocols unlocking a seemingly infinite range of options for how retail, food service or other commercial environments operate. No longer must the POS be static; now, associates can wield mobile devices to bring the POS to the customer. POS now takes a wide variety of forms, and cash drawers are easily a part of each one.

Solution providers can help business owners realize better customer experiences by selecting POS devices and peripherals that offer the right design, integration, durability, security, flexibility and aesthetics. Following are common current and emerging retail and food service operating environments, along with recommendations for the right cash drawer for the job.


1 | TABLET/MOBILE POS ENVIRONMENTS – Small retailers, specialty stores, full-service restaurants, high-end retail environments

Tablet POS is taking retail by storm. According to the RIS News 25th Annual Retail Technology Study, 33% of retailers have already invested in mobile POS (including tablets) and another 20% plan to invest. While portability would seem to be tablets’ most attractive feature, in fact many of these installations use tablets mostly as upgrades from electronic cash registers and often in a fixed position at a stationary point of sale. These merchants are seeking the many additional benefits of a computer-based POS system, but are drawn to the lower, often subscription-based, price tag of a cloud-based, tablet-based solution.

Others, choose to use tablets or phones as truly mobile POS devices, at least part of the time picking them up to accept payment anywhere on the store floor, in dressing rooms, or even outdoors for sidewalk or tent sales. Another variation is for temporary pop-up POS, such as trade shows and entertainment events.

Most often tablet POS solutions are connected to a store-based PC or the cloud, which makes them thin clients. APG coined the term Thin-bility (thin client + mobility) to describe this set-up. Thin-bility means the handheld or tablet can be both a thin client and a mobile device simultaneously.

A retailer choosing a Thin-bility environment has several key choices to make in the services and options they want to offer their customers, and these impact cash drawer selection:

 **With Receipt Printer.** The first and by far most common configuration is to connect the tablet POS to a receipt printer and have the receipt printer drive the cash drawer—the same set-up as with a traditional POS system, although the receipt printer to tablet communications could be via WiFi or Bluetooth. At ShopKeep POS, for example, most installations are set up this way, using a broad range of APG Vasario Series standard duty drawers or APG Series 100

heavy duty drawers. However, “We expect at full service restaurants and bars, as more and more servers carrying tablets around, that’s going to change,” says Patricia Chamless, manager of ecommerce at ShopKeep POS. “There is a model of APG out there for every store.”

Similarly, in POS Lavu installations, printers are hard-wired to an internet router, APG’s Vasario cash drawer is wired to the printer via RJ 11 and RJ 45 cabling, and the printer communicates via the network to the wireless tablet POS, says Ben Harrison, SVP brand/creative management team for Lavu.



POS now takes a wide variety of forms, and cash drawers are easily a part of each one.

Epson is seeing increased interest in a variation of this configuration: All-in-one solutions that incorporate a tablet, a printer, a slim integrated cash drawer and other peripherals such as card readers and scanners, says Dave Murphy, strategic alliances manager for Epson America. PowaPOS, for example,

incorporates a tablet, printer, 2D scanner and an OEM 24-volt direct drive APG cash drawer into a single unit. An SDK for the Android/iOS/Windows tablet version of the software includes language to drive the cash drawer right from the software.

Another variation on this set-up: dual cash drawers. At busy counters such as in large pharmacies, retailers want two cash drawers for one POS device, says Mike Gross, VP sales and marketing for Retail Management Systems (RMS). Two associates share the POS device, and a fingerprint reader triggers that clerk’s drawer to open.

In these applications a solution provider would choose from a variety of cable-connected cash drawers according to other requirements of the retail environment, such as transaction cycles and currency requirements.

Cash Drawers: APG Cash Drawer products ideal for this integration approach include the Series 100 and Series 4000 and Vasario product lines with the APG MultiPRO® #320 Interface.

Without a Receipt Printer. A 2014 survey by Epsilon found more than half of retailers surveyed already had digital receipt programs in place, and offer them across their entire store footprint. A third had electronic receipts in select stores only. Often this is in addition to the option for a paper receipt. A small but growing number of retailers are eliminating printed receipts entirely. In place of paper, customers rely on the retailer to track purchases in loyalty programs or third-party receipt management services and retrieve the data anytime there is an issue with the product. Or, they prefer to have the emailed receipt accessible electronically in their own hard drives or in the cloud so they don’t have to deal with paper.

In this scenario, there is no receipt printer in between to trigger drawer openings, and no port on the tablet to connect the cash drawer via cable. Instead, both the tablet and cash drawer connect to the network, and the tablet triggers the cash drawer via IP. There are two ways a retailer might do this, depending on whether the retailer wants multiple POS devices to share access to a single cash drawer, or one cash drawer per POS device:

→ **Higher value stores or fine dining with a high touch, concierge approach**

In some settings retailers want multiple mobile POS devices, such as tablets, to share a cash drawer for customers desiring to pay with cash. RMS’s EvolutionPOS is a fully mobile POS system for applications such as pharmacy prescription will-call. But if the customer wants

to pay cash, the associate moves to an APG networked cash drawer mounted under the counter and scans a bar code affixed to the front using the mobile unit's scanner, ensuring the drawer can only be opened when the associate is in front of it.

That situation calls for an IP Ethernet-enabled Cash Drawer. IP-enabled drawers can connect to the network via Wifi or a LAN port on the network and be activated from stationary or mobile tablet stations. IP drawers especially make sense in a Thin-bility environment because there are no ports for peripherals on most tablets.

When used with mobile POS devices, the cash drawer in this environment becomes the social center of the transaction: Sales associates and customers tend to congregate at the cash drawer as they complete the sales process. This allows retailers to still maintain a wrap station even though it no longer houses the POS device.

Cash Drawers: APG's NetPRO® Ethernet-enabled cash drawer is available with wireless Ethernet, wired, and WebSockets connectivity. This drawer is ideal when there is no printer involved or when the printer is an optional part of the system. NetPRO® cash drawers are designed for sharing; tablet software can be easily configured to send signals to a shared drawer. Software can track which associate opened what drawer and when, in part through drawer opening data generated by the cash drawer. Another feature is biometric and bar code claiming, to prevent someone from opening the drawer unless the authorized user is in close proximity.


→ **Specialty stores and food service environments with low-volume mobile POS environments.**

In these settings, retailers often prefer one mobile POS device per one cash drawer, making a Bluetooth enabled cash drawer an excellent option. Bluetooth communications are used to wirelessly synchronize and transfer data between the mobile device and Bluetooth enabled cash drawer within a personal area network when they are in close proximity. Bluetooth is also perfect for either thin or mobile environments where a network is not available for the POS system.


Cash Drawers: Cash drawers with APG's BluePRO™ Bluetooth adaptor. The Bluetooth connection facilitates the open command as well as drawer status to the POS application. This makes for a secure, low cost, wireless solution for a one-to-one mobile or thin environment. An installation that currently has a printer-driven drawer can easily be upgraded for Bluetooth use by simply removing the printer and replacing it with the BluePRO™ adaptor. The BluePRO™ adaptor also works with any APG MultiPRO® #320 printer-driven cash drawer.

2 | FRONT-END POS CHECKOUT COUNTER/LANES – Grocery, mass merchant, pharmacy, quick service restaurant

These high-transaction-volume retail and food service settings often continue to choose traditional POS terminals to withstand demanding environments along with heavy-duty cash drawers that stand up to abuse. But new options for driving the cash drawer emerge as some consider phasing out receipt printers at every station.

 **With receipt printer.** In these settings, a solution provider would choose from a variety of cable-connected cash drawers according to other requirements of the retail environment, such as required duty cycles.

Cash Drawers: APG Cash Drawer products ideal for this integration approach include the Series 100 and Series 4000 product lines with the APG MultiPRO® #320 Interface. These drawers are designed to years of trouble-free service in handling high volume transactions found in these environments.

 **Without receipt printer.** Some large format retailers and quick service restaurants are also eliminating the receipt printer in favor of emailed receipts. In these settings, which feature high transaction volumes but no printer to drive the cash drawer, USB can be a great option. The USBPro™ interface is a Plug and Play interface, allowing the user more control over the operation of the cash drawer. Powered by the USB bus, external power is not required, creating true plug and play connectivity. Drivers allow seamless operation within the POS software. The USB interface also prevents unauthorized devices from opening the drawer, increasing security.



With high transaction volumes but no printer to drive the cash drawer, USB can be a great option

Cash Drawers: APG USBPro™ interface for Series 100, Series 4000

→ **Multiple POS terminals, one receipt printer**


Another option is for these fixed POS stations to share a single receipt printer, for the occasional

customer that still wants a receipt. In these environments, the retailer can use USB cash drawers to connect to the network and trigger drawer openings, and the receipt printer can operate separately on the retailer's network. Alternatively, up to two cash drawers can be connected to the printer, for a lower cost solution.


Cash Drawers: APG USBPro™ interface for Series 100, Series 4000

3 | **SMALL FOOTPRINT POS –** Food trucks, mall kiosks, pop-up sidewalk events, etc.

Space is at a premium in micro retail or service environments, making a small footprint ideal. Many operators are turning to tablet POS not for the mobility, but for the streamlined form factor. It would be less common for these installations to have a network in place, so communications among the POS components would most likely be via Bluetooth or direct cable. Most often these solutions call for a standard duty, small footprint cash drawer built into the counter. Options here include:

 **With receipt printer.** In this configuration, one or more mobile devices wirelessly communicate via Bluetooth to a printer that is wired or wirelessly connected to the cash drawer. iConnect POS, a Powapos reseller in Fort Worth, Texas, sells primarily wired Ethernet connected cash drawers now, but is seeing increasing demand for this configuration, says Bryan Chambers, director of business development.

Cash Drawers: APG's Vasario cash drawers with the BluePRO™™ adaptor for wireless connectivity

 **Without receipt printer.** A tablet can connect to a cash drawer via Bluetooth. The Bluetooth connection facilitates the open command as well as providing drawer status to the POS adaptor.

Cash Drawers: APG’s Vasario cash drawers with the BluePRO™ adaptor.

→ A **fully manual cash drawer** is another cost effective option for both printer and printerless installations. These are opened with the push of a button on the cash drawer face plate rather than triggered from the tablet, although mobile-friendly electronic cash drawers offer higher security.

Cash Drawers: Manual push-button cash drawer

**4 | HYBRID POS –
 Queue-busting in all environments**

Retailers often take incremental steps toward full adoption of mobile POS, or see it only as a supplement to traditional front-end lanes with fixed POS devices at busy times of day. In these cases, mobile POS devices are used to ring and suspend the transaction. An associate equipped with a mobile device scans all of the items in a customer’s order and then places the transaction on hold. The customer then proceeds to a fixed POS cash wrap where the associate reactivates the transaction and accepts payment. This improves throughput and helps shorten queues.

In these scenarios, the options are the same as with any fixed POS, with or without a receipt printer.

Cash Drawers: Series 100 and Series 4000 and Vasario product lines with the APG MultiPRO® #320 Interface or USBPro™ interface

ADDITIONAL CONSIDERATIONS

Connectivity is just one aspect of ensuring a cash drawer is the right fit for a commercial environment. APG offers 1,600 different SKUs of cash drawers, and for good reason. Retail, restaurant and other commercial operations range widely in things like market characteristics, volume and aesthetics. Therefore, in addition to the varied interfaces, APG cash drawers accommodate differences in transaction volume, size, orientation, currencies held, intelligence and color. All are important considerations to ensure a great fit between business operations and the cash drawer.

- **Volume** – Imagine if the POS supporting your fast food drive-thru failed at the height of a busy lunch rush. Transaction volume determines the required ruggedness/duty cycles, and high volume transaction environments such as quick service restaurants should use a heavy-duty drawer that is built for four million transactions and can withstand abuse. APG offers both standard and heavy-duty cycle product lines.

- **Size** – The varied configurations of POS stations, from tight food trucks to relatively spacious specialty store counters, allow for variations in the size drawer that can be accommodated. APG has sizes ranging from 13” x 13” up to 20” x 22” to fit virtually any environment.

- **Currencies Held** – The dimensions of currencies vary across the global economy, as does the number of bills and coins, so APG provides a range of drawer inserts to accommodate the variations.

- **Orientation** – Some retailers prefer vertical or inclined note presentation. In Europe, for example, flip-top drawers are extremely popular because currency differs in both size and

color. The currency within these drawers stand upright like a file folder and the top flips up completely to enable the associates to see all currency, with bills standing on their long end. The drawer is positioned between the sitting associate and the customer to ensure ongoing contact and security. APG's Flip-Top cash drawers allow for a low front-end profile for POS workstations.

- **Loss Prevention** – Cash drawer functionality plays a key role in ensuring security and reducing shrink. Because cash drawers in APG's NetPRO® line connect directly to the network, they can automatically generate and share a wide range of data about cash drawer events. This data can be imported into a POS application to support security monitoring functions such as analyzing operating patterns and generating alerts. For example, when a drawer is open too long or is unexpectedly powered down or opened with a key, the system can be programmed to alert a store manager. The NetPRO® cash drawer can also trigger a camera system to focus on and mark that exceptional event.

The data generated by APG's NetPRO® cash drawers can also be used to associate a drawer-opening event with a particular person, useful in shared drawer environments and where drawers sit unattended.

- **Color** – Many APG cash drawers are available in multiple colors to fit into any retail design.

THE POWER OF CHOICE

The rise of mobility and exciting new form factors are revolutionizing the very idea of point of sale and at the same time, payments are undergoing a period of rapid change. As retailers, restaurateurs and other business operators begin leveraging this new flexibility to reimagine store settings, they will rely on solution providers to recommend the right solutions to help them realize these goals while still maintaining the security and control they require.

Part of this role includes helping to educate retailers on the importance of allowing for cash transactions no matter what the desired POS environment. The fact remains that cash continues to be an important payment mechanism with benefits for consumer and merchant alike. Fortunately, APG's cash drawers have evolved right along with the retail trends, empowering solution providers to design solutions that deliver the brand experience and enable fast and easy payment, no matter what the payment instrument.

About APG

APG manufactures highly durable and dependable cash drawers. APG has built a reputation as the supplier of choice for retail, hospitality and mobile cash drawer solutions for thousands of customers throughout the world. To learn more about APG's products, visit www.cashdrawer.com or call 763-571-5000. Follow us on Twitter at @apgcashdrawer and on Facebook.

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