Winning Shoppers in the World of Unified Commerce Requires a Redesign of Point-of-Sale (POS)

The new Unified Commerce environment demands more and different POS devices supported by a new approach to POS infrastructure.

New store POS device types, as part of a common infrastructure, help strengthen relationships with customers and streamline operations.

Omni-channel shopping is retail’s new normal. Lest there be any doubt, consider this: Though 88-91% of shoppers say they still prefer to complete their shopping journey in the store, fully two-thirds now regularly begin online. And the Internet’s influence on all transactions (online and in-store) is growing—in 2015, 51% of all US retail revenue was either influenced or transacted by the Internet.

Today’s shoppers want an order-fulfill-transact process that is both personalized and seamless. Increasingly, they expect retailers to engage with them where they want, any time they want, and to provide a consistent experience across channels and devices. Brands are working hard to adapt quickly to this new reality, aware that moving too slowly may result in lost market share—or worse. They are now merging their digital and physical channels on a single platform to deliver the unified commerce experience shoppers crave.

This is Your Future of Store POS. Starting Now.

Digitally-empowered shoppers (...) expect retailers to offer consistent, seamless shopping experiences wherever they take place.

Forrester Research, Inc., 2016
Now Emerging: The Right Device for the Right Retail Setting

Providing a unified commerce experience calls for a broad array of new store capabilities. And these, in turn, demand a wide variety of POS devices and peripherals. For example, in a click & collect scenario, a locker requires a type of technology to allow a shopper access that will be different from fixed POS technology. Drive-through pickup calls for mobile or kiosk-type devices. Endless aisle services need highly interactive devices (to not only allow the transaction but to suggest where the product is and confirm that it’s the right size or color). Last-mile delivery requires mobility—and if payment on delivery is an option, that impacts the type of technology that’s needed, as well. Vending or automated retailing of commodity items in the store requires still other technologies and device types. The breadth of devices that retailers use for transacting and for providing transaction and scheduling services is changing dramatically.

While traditional, fixed POS terminals still receive the majority of retail transactions, new form factors will be increasingly important as the new capabilities of unified commerce are rolled out to all stores.

The POS Devices You Need for Today and Tomorrow

<table>
<thead>
<tr>
<th>Device Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fixed POS Terminal</strong></td>
<td>Tier 1 Lane &amp; Cash-Wrap</td>
</tr>
<tr>
<td><strong>Cash-wrap All in One</strong></td>
<td>SMB Specialty, Efficiency, Flexibility</td>
</tr>
<tr>
<td><strong>Mobile POS</strong></td>
<td>Click &amp; Collect Seasonal / Queues Associate Assistance</td>
</tr>
<tr>
<td><strong>Value-smart POS</strong></td>
<td>Smallest Formats, Pop-up and Seasonal Fixed, Ease of Use</td>
</tr>
<tr>
<td><strong>Interactive Kiosk</strong></td>
<td>Click &amp; Collect Endless Aisle Deli &amp; Self-serve, Interactive Self Service</td>
</tr>
<tr>
<td><strong>Automated Retail</strong></td>
<td>24-7 Service, In-Store Vending, Non-perishable Commodities</td>
</tr>
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POS in the Unified Commerce Store: Four New Challenges for IT

The proliferation of new and different POS devices, including personal and mobile devices, poses four significant challenges for retail IT:

1. **Increased hardware cost and complexity** – Greater diversity in hardware may necessitate maintenance of a larger spare parts inventory and increased levels of technical support training.

2. **Increased operating system and software cost and complexity** – Multiple operating systems and applications between fixed and mobile POS can cause integration and interoperability issues.

3. **Remote device management nightmares** – Different types of hardware and diverse systems can translate to more downtime and additional energy spent on device management and maintenance.

4. **Greater security risk** – With retail POS a frequent target of increasingly sophisticated cybercriminals, more touch points and more surfaces can mean greater risk of exposing shopper personal identification and credit/debit card information.
The New POS Architecture: Advanced Security Integration Across Devices and Environments
Supporting the host of new POS devices and peripherals efficiently and effectively—and eliminating IT headaches—requires a unified enterprise architecture. To minimize complexity and maximize security in this environment, retailers need a common operating system across all devices and peripherals, along with a common user experience and functionality. Retailers need as much common remote management as possible to allow them to address issues on devices such as kiosks, interactive signage, and vending machines, as well as on fixed devices. And retailers need highly secure infrastructure that allows them to protect both card and personal data at all points along the shopper journey.

The New POS The Key Components of Enterprise Architecture

1. The shopper makes payment at a range of in-store devices—as part of their broad dialogue with the store.
2. Each in-store device (or screen) is supported and enriched through advanced verified commerce capabilities, be they part of the in-store systems or part of enterprise systems in the data center.
3. As well, shoppers have access to payment services outside of the store systems—via any number of screens, be they web, social or mobile.
4. No matter the source, the payment portion of the POS functionality, the actual transaction is serviced via secure connection to a common payment service provider.
5. The shopper experience at the POS is enriched by new business components which support the unified experience, provided by SaaS business services, either supporting the enterprise as a whole (extending the data center)...
6. or, supporting individual stores with store-specific capabilities or redundancy from the data center.

The Intel Advantage: Integration and Innovation
A common device architecture and a common operating system combined with multi-device software can reduce complexity, increase agility, expand functionality, and lower operational costs. Intel’s broad POS device and software ecosystem—the world’s largest—gives retailers options when choosing components, allowing them to minimize integration issues and control acquisition costs. Powerful, hardware-based remote management solutions enabled by Intel® vPro™ technology make it possible to solve IT issues remotely to reduce per-incident cost by $170 per service call to drive long-term ROI. Combined with security solutions such as Intel® Data Protection Technology for Transactions, these remote management tools provide retailers with a more secure and manageable system of POS machines, digital signage and client PCs at lower cost. Intel offers retailers the advantage of one for fixed and mobile POS—one infrastructure, one operating system, one application, one remote management and one security.

The path to unified commerce requires both integration and innovation, and Intel is known for both. Intel technology helps retailers create sustainable POS value as they transition to one architecture in the era of unified commerce.
Strategic Solution Partners

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- Hewlett-Packard
- Dell
- Wincor/Nixdorf
- NCR
- Fujitsu
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Intel Technology Foundation

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- Intel® Active Management Technology

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- Intel® Core™ M Processor
- Intel® Express Chipset

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- Intel® SSD Pro Series

Connectivity
- Intel® Ethernet XL Family
- Intel® Wireless-AC
- Intel® XMM™ Chipset
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