Vertical’s Applications Aim to Address Retail’s In-Store Customer Convergence Woes

In an era of converged (physical and digital) retailing at store-level, customer connection areas such as voice-assisted selling and messaging, music service, digital signage, automated applications, and other media-rich solutions are all coming together to influence buying behavior. According to data from Aberdeen’s February 2011 Automated and Connected Store report, 63% of retailers aspire to connect better with the customer’s emotions and mindshare. Due to the evolution of pre-shopping research by customers and access to omni-channel products, pricing, and promotions, 59% of retailers have indicated that convergence-ready stores are no longer optional.

The emergence of digitized retailing — i.e., the use of digital sales and service tools and processes such as voice, kiosks, mobile customer service, tablets, digital signage, etc. — is a necessity to create a productive, information-rich, and connected omni-channel environment before, during, and after the shopping experience. As a result, the need for a customer-connected store environment compels retailers to re-think their internal and external communications in terms of voice, video, data velocity, types, and complexity. According to data from the report cited above, 75% of retailers are somewhat satisfied or neutral towards the current effectiveness of their in-store communications methods. Unified Communications (UC) applications, such as the ones deployed by Vertical Communications, can assist in solving such in-store communications-related complexities for retailers. Vertical’s ‘Retail Applications Suite’ and Internet Protocol (IP) Private Branch Exchange (PBX) platform enhances customer service and increases productivity in stores. This Analyst Insight assesses Vertical’s product positioning and possible market impact in light of Aberdeen’s research into best practices in the retail industry. This document also identifies a roadmap to the key Pressures, Actions, Capabilities, and Enablers (PACE) that retailers can adopt to address their UC needs.

Top Business Pressures

Before discussing Vertical’s positioning in the retail marketplace, it is important to assess the current business pressures or pain-points that affect the in-store customer experience. The single, most common aspect among top pressures cited in Figure 1 is the need to introduce more customer and employee empowerment through multi-media and digital experience processes and tools.
The increasingly dynamic nature of these tools also changes the way cross-channel networks are utilized. Augmented voice, data, and video bandwidth needs (via the increasing use of business and consumer applications) pressure retailers to consider network upgrades and enhancements. The use of smartphones on the retail WIFI network also tax these networks, which were designed for data and cannot meet the requirements of a voice solution without upgrades and enhanced coverage.

The increased use of smartphones and other mobile devices by consumers has resulted in an exponential growth of in-bound store call flow traffic. While retailers’ stores receive more inbound calls than ever before, many companies are ill-equipped to handle this load with their current store associate staffing levels and telephony systems. The leading pressure today for 41% of retailers is the need to create enhanced self-service customer touchpoints. With fewer employees on the floor, self-serve touchpoints, such as grocery deli kiosks and iOS-supported ordering devices in casual dining environments, are a top choice to help stores service shoppers. In addition to supporting omni-channel sales and service or the increasing need for mobility within the store (customer-facing, employee-operated, management-operated, or bring your own device (BYOD)), data from Aberdeen’s July 2012 report, The Automated Store: The Key to Customer Engagement, indicates that 70% of retailers either currently use smart and mobile technologies to improve store-level omni- and multi-channel selling, or will have these capabilities within two years.

When combined, the second and third pressures listed in Figure 1 hold a lot of weight in terms of defining the future of the customer experience in the store. Overall, 76% of retailers grapple with rapidly changing shopping preferences or expectations, as well as the evolution in sales channel preferences (web, mobile, social media, etc.). As digital and omni-channel integration points increase in the store, retailers will need to rely on increased bandwidth from store-level networks for fast up- and downstream data flows. If increased bandwidth is available, retailers will streamline how they deliver personalized, unique, and interactive shopping experiences. Limited bandwidth, however, can potentially sour consumers at a critical point of interaction, and ultimately decrease overall, long-term revenue-generating opportunities.
Challenges

In addition to the above pressures, Aberdeen data indicates that a key information technology (IT)-related challenge in the store (for 37% of retailers) relates to consumer and competitive pressures that continue to force retailers to aspire toward higher business and IT priorities (see Figure 2). Embracing media-rich digital applications to provide a modern, interactive, and unified two-way (retailer to customer) communication-enriched shopping environment fits well into their aspirations, yet this transition requires transformational thinking.

Change-management issues and limited resources are always constraining factors as retailers try to overturn the domination of complicated legacy systems, including voice, data, and wireless local area network (LAN) networks. In fact, this was the top issue according to another 37% of companies. For any store UC and infrastructure modernization program, funding can come in spurts depending on financial performance. This type of funding, however, gets choked due to inadequate business justification, change management complexities, or lack of a defined roadmap.

“To be honest, until recently, in-store network connectivity has never been a major priority for us. However, given the increased customer-touchpoints we are putting at the store level, we have revisited it. If these devices are going to be worth their investment, they need connectivity.”

~ Store-Systems Manager
US-based Electronics retailer
The time has come for one-to-one customer interactions, and this can only be supported by modern communications tools. Thus, updating in-store unified communications and network capacity for increased support of business- and consumer-facing in-store devices has become a top priority for retailers. According to Aberdeen data, 62% of retailers emphasize increased bandwidth capacity for business applications, and 51% of these same organizations address network enhancements due to an increased use of customer-facing applications (Figure 3).

**Figure 3: Top Network Management Related Actions for Retailers**

- Enhance bandwidth capacity for business applications: 62%
- Increase bandwidth capacity for consumer applications: 51%
- Increase data-rich components for all major customer touchpoints: 35%

Source: Aberdeen Group, October 2013
Vertical Communications Background and Market Impact

Vertical Communications is a provider of unified communications and Internet Protocol (IP) telephony appliances and services for small and mid-size businesses, as well as larger organizations, with a targeted focus on the Retail space. Formed through a combination of Vertical Networks, Artisoft, Comdial Corporation, and Vodavi Technologies, Vertical is a privately-held company backed by private equity and strategic partners, including LG Electronics Telecom Division, which is both a strategic investor and product development partner. Vertical distributes its products through both direct and indirect sales channels via a network of re-sellers and partners throughout North America and Europe.

Vertical’s UC solutions feature the only IP PBX with integrated business applications that can be dynamically deployed in a single system. For retailers, Vertical’s Wave IP unified communications and IP PBX appliance platform offers a cost-effective way to consolidate IP telephony, voice applications, data networking, and mobility on a single integrated platform. This effort creates a distinctive solution through which stores can efficiently and easily track, manage, and optimize incoming customer calls. Wave IP is a true hybrid system available with fully functioning UC capabilities built on an all-inclusive licensing model that enables users to activate embedded applications as business needs dictate through a simple license key.

The differentiator for Wave IP in the retail space is the ability for stores to integrate and run other in-store communications applications and systems — including music, overhead messaging, wireless gateways, Interactive Voice Response (IVR), in-store assistance applications, digital signage, etc. — on one box. This could provide significant savings when compared to a comparable “piece / part” solution available through multiple vendors.

Often, stores act as call centers for omni-channel customer inquiries on products and services. Associates and managers are required to respond to each and every incoming call, as well as to all voice messages. Native to the Wave IP are several voice-enabled call-handling features such as Automated Attendant, Automated Call Distribution (ACD), IVR, Speech Recognition, Text-to-Speech (TTS), and Service Response to help manage customer calls to enhance the quality of the customer experience as well as improve employee productivity. Vertical also offers a suite of intuitive, retail-specific applications for the Wave IP, including prescription refill, customer record retrieval, customer order automation, marketing-on-hold, and automated callback.

The Wave IP also features a centralized, global system management tool designed for retail environments with widely distributed locations. The Wave Global Manager application supports hundreds of simultaneous users and scales to thousands of sites for store-by-store or enterprise-wide system administration and network management. In conjunction with the Global Manager application, the Wave Global Reporter tool provides real-time and historical business intelligence and visibility into individual
department, store, region, and/or chain-wide communications. The application can monitor key metrics in the store such as call flow behavior, average speed to answer, lost calls, or unattended calls, as well as measure the effectiveness of on-hold messaging campaigns.

According to Aberdeen’s March 2012 *Elevating Mobile Commerce as an Enterprise-Wide Strategy* report, a key current trend is leveraging mobile commerce within the physical store. Location-based mobile marketing and merchandising services are very likely to form a big portion of consumer-focused store localization and personalized messaging and service efforts. To accomplish this, particular attention needs to be placed on short messaging service (SMS) texts (30% current usage; 57% plan to use) for activating customer accounts, opt-in processes, and delivery of personalized coupons, special offers, and notification of sales events, in addition to the facilitation of in-store customer assistance. Vertical’s ‘Quiet Store’ solution addresses these emerging mobile channel opportunities while eliminating the need for overhead paging with SMS text alerts to associates’ mobile devices when customers require assistance.

**Competitive Impact**

Vertical’s retail strategy primarily revolves around assisting retailers within the grocery, big-box, drug/pharmacy, apparel, general merchandise, and specialty retail segments. Within this sector, Vertical competes with a number of solution providers such as Cisco, Avaya, Alcatel-Lucent, Blue Coat Systems, and Nortel, as well as a host of mid-sized companies with competing UC offerings. The drive towards research and innovation in this market is strong, as most of the companies vie for end-user mindshare when it comes to innovative licensing models, customer- and channel-converged unified communications platforms, and advanced IP PBX tools.

Vertical possesses a fully-integrated unified communications platform with IP PBX appliance tools that can provide rich reporting capabilities, mobility, and business intelligence (BI) benefits for store operations and other channel management teams. The company also boasts a robust list of Tier 1 marquee customers such as CVS, Advance Auto Parts, Pizza Hut, Toys"R"Us, and others. Upon analyzing their platform capabilities, it is evident that Vertical has the tools to address Tier 1 retail (over $1 billion in revenue) UC needs, as well as a firm strategy to go downstream into mid-market (revenue between $50 million and $1 billion) retail tiers in dire need of a richer, more modernized UC strategy that includes in-store music, customer messaging, wireless gateway, telephony, mobility, and digital signage. Vertical provides a ‘rational’ migration strategy for these and other IP-based UC services with a hybrid solution that can be both centralized and decentralized, providing reliability at the edge and savings in the cloud. Aberdeen data from the January 2011 WAN Optimization survey shows that 83% of companies (half of which are in the mid-market) provide equal access for users at both branch locations and headquarters towards business applications such as Voice-over-IP (VoIP), video-conferencing, and Unified Communications.

“We see a lot of consumers gravitating toward our mobile devices, which is a good development. Mobile devices, like the ones at our tills, make the in-store process go faster and easier… as long as they are able to connect with the network without challenge.”

~ Director of IT
European Sports Apparel Retailer
Case in Point

Autopart International (AI) has quite a reputation. The company delivers premium quality auto parts, offers behind-the-counter knowledge and expertise, and supports a delivery model that gets customers the right parts at the right time. The company conducts business through an ecommerce site, as well as a chain of 200 AI-branded stores that stretch from New England to Florida. As AI grew into such a vast operation, an antiquated communications network made it impossible for the company to continually monitor and refine its call-handling processes to ensure that orders were correctly being processed. As a result, the company began operating each of its 200 stores in separate silos, a move that made it impossible to monitor enterprise-wide monitoring, managing, and reporting of customer calls.

By adding Vertical Communications’ Wave IP platform at more than 100 AI locations, the retailer gained a single platform that integrates both advanced IP capabilities — as well as legacy technology — into the network. Among the features that are embedded into AI’s system include unified communications, collaboration, and presence management tools, call recording, auto attendant, and conferencing services. It also features the Wave Global Reporter application that aggregates call processing metrics for each individual location, as well as generates regular reports that are distributed to AI’s executives and senior managers. This data enables these executives to project trends, and make adjustments to staffing and inventory as needed.

Since adding the solution in 2008, AI now tracks and anticipates call volume trends across the organization though hard data, enabling management to make accurate operating decisions. These decisions can also be made on a local, store-level basis, as well as globally across the chain.

“AI’s become much more responsive and customer-focused,” said Jim Russell, AI’s director of infrastructure and operations. “The solution streamlines our communications processes and provides us with instant access to tangible data that has a profound effect on how we satisfy our customers’ needs. Most importantly, the technology will scale with our business.”

Current and Planned Unified Communications Capabilities

As retailers stay focused on building a modern, customer-centric in-store experience via digital, voice, and other in-store communications, companies need a strategy that includes both customer-facing applications such as digital signage, and business-facing applications such as cross-channel business intelligence data. To properly take advantage of bandwidth-intensive rich media devices, however, retailers must ensure that the appropriate internal capabilities are in place to support this initiative. To that end, four key capabilities have emerged as top strategies retailers are embracing to address this challenge:
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- Marketing, store operations, and network managers meet regularly to coordinate campaigns with increased bandwidth expectations
- Purchasing decisions about network equipment made at headquarters include store-level input
- Senior management support for in-store network technology upgrade
- Tracking of media-aided cross- and up-sells

In addition to the above capabilities, retailers plan to enhance in-store application performance, and ensure adequate network capacity for running omni-channel tools, such as web kiosks and in-store order management (see Table 1). Retailers also target capabilities that enable customers to access web and catalog product availability and information, as well as order products on mobile phones, within the store environment. All of these capabilities point to the fact that stores as we know them today are very likely to evolve into omni-channel shopping destinations as alternatives to the online shopping experience. For instance, retailers such as Best Buy are closing down non-performing stores and converting some part of their store strategy towards mobile stores. All these changes would mean that dynamics for traditional in-store communications would need to change towards more integrated devices for voice, video, and data.

Table 1: Current and Planned Process Capabilities

<table>
<thead>
<tr>
<th>Capabilities</th>
<th>Currently Use</th>
<th>Plan to Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to web and catalog product availability and information within the store</td>
<td>38%</td>
<td>42%</td>
</tr>
<tr>
<td>Ability to place product orders on mobile phones within the store environment</td>
<td>17%</td>
<td>42%</td>
</tr>
<tr>
<td>Adequate in-store network capacity for running channel tools</td>
<td>40%</td>
<td>31%</td>
</tr>
<tr>
<td>Application performance measured against compliance to SLAs</td>
<td>44%</td>
<td>43%</td>
</tr>
<tr>
<td>Response times measured for business-critical store applications</td>
<td>55%</td>
<td>42%</td>
</tr>
<tr>
<td>Ability to locally store data relevant to each network location</td>
<td>50%</td>
<td>33%</td>
</tr>
</tbody>
</table>

Source: Aberdeen Group, October 2013

Secondly, Table 2 highlights key knowledge and performance management capabilities related to retailers’ plans to adopt UC in the foreseeable future. These capabilities include: educate, inform, and train managers and associates on new rich-media technologies; upgrade in-store network to support wireless; and track / analyze overall in-store data network up-time. As in-store networks evolve towards cross-channel networks, these capabilities become more important as in-store networks will need to
handle new types of data, voice, and video standards. In larger networks, capabilities that support WAN optimization through centralized management will become more critical as scalable business and customer-facing tasks across stores will require a more tightly integrated, cost-effective, and optimum unified communications strategy.

Table 2: Current and Planned Knowledge and Performance Capabilities

<table>
<thead>
<tr>
<th>Capabilities</th>
<th>Currently Use</th>
<th>Plan to Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upgrade in-store network to support wireless</td>
<td>76%</td>
<td>24%</td>
</tr>
<tr>
<td>Ability to educate, inform, and train managers and associates on new rich-media technologies</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>Ability to track and analyze overall in-store data network up-time</td>
<td>65%</td>
<td>29%</td>
</tr>
<tr>
<td>Centralized management of WAN optimization appliances</td>
<td>75%</td>
<td>19%</td>
</tr>
<tr>
<td>Ensure network is completely PCI compliant at all points</td>
<td>76%</td>
<td>18%</td>
</tr>
<tr>
<td>Ability to track and analyze in-store video application up-time</td>
<td>58%</td>
<td>26%</td>
</tr>
<tr>
<td>Ability to track and analyze in-store audio application up-time</td>
<td>47%</td>
<td>35%</td>
</tr>
</tbody>
</table>

Source: Aberdeen Group, October 2013

Current and Planned Unified Communications Enablers

Almost half the retailers surveyed (44%) indicate that they prefer the adoption of multiple application delivery functionalities (such as caching, compression, and SSL acceleration) on a single device. As device density increases through omni-channel retail sales, a single platform that can manage converged communications tools becomes more relevant. However, as the proliferation of smart devices continue, retailers must be mindful of the delivery of their digital experience. As a result, the top priority for companies (57%) is to optimize their experiences based on device usage.

Secondly, tools that prioritize business-critical applications are the second-highest planned technology enabler for companies. To support these two goals, network traffic compression also remains one of retailers’ top three priorities. Network traffic compression tools are designed to lower bandwidth requirements and improve data accessibility for faster device downloading. Consumers (and the employees who support them) are keenly aware of how fast a particular device can communicate with other sources of data. The faster this information flows up to headquarters and
down-stream to the field / channels, the better (and potentially more profitable) the in-store or channel experience.

**Table 3: Unified Communications Technology Enablers**

<table>
<thead>
<tr>
<th>Enablers</th>
<th>Currently Use</th>
<th>Plan to Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple application delivery functionalities (caching, compression, SSL acceleration, etc.) on a single device</td>
<td>44%</td>
<td>51%</td>
</tr>
<tr>
<td>Single platform for managing application performance visibility and QoS</td>
<td>51%</td>
<td>41%</td>
</tr>
<tr>
<td>Tools for network traffic compression</td>
<td>51%</td>
<td>46%</td>
</tr>
<tr>
<td>Tools for prioritization of business-critical applications</td>
<td>53%</td>
<td>39%</td>
</tr>
<tr>
<td>Tools for application specific optimization</td>
<td>57%</td>
<td>38%</td>
</tr>
<tr>
<td>Network routers with integrated WAN optimization capabilities</td>
<td>50%</td>
<td>42%</td>
</tr>
</tbody>
</table>

Source: Aberdeen Group, April 2012

**Key Takeaways**

Omni-channel retailers face a unique challenge to ensure that basic customer-facing and back-end processes are executed in a timely and efficient manner. Omni-channel selling in the store can be challenging as store employees or customers have to often order or browse products using the store’s online and catalog channels. Such experiences can be marred by customer dissatisfaction due to poor or delayed service. By deploying unified communications tools, retailers can ensure real-time connectivity between employees of multiple channels and eliminate customer service delays related to multi-channel ordering. Our data shows that retailers have traditionally struggled with the lack of updated network infrastructure to support new customer-facing technology introductions. These companies need to weigh the cost-benefits of investing resources in a converged IP-enabled network upgrade and WAN optimization for smooth voice, data, and video deployment versus the customer service benefits. Our results indicate that such an investment in network upgrades can derive long-term customer service and operational efficiencies.

Below are some recommendations for companies considering UC platforms in the near future:

- **Focus on network optimization requirements:** Consider the availability of adequate network infrastructure for all stores engaged in in-store digital, voice, and mobile retailing. Weigh the pros and cons of an integrated platform for unified communications for voice, video messages, and data for optimized in-store communications.
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- **Adopt performance management:** Companies deploying integrated voice, video, and data messaging tools must include key performance indicators (KPIs) such as uptime, content success-failure distribution rate, order abandonment rate, and transaction size.

- **Evaluate transition to WAN optimization:** Proactively accelerate and shape network traffic. If multiple retail stores in the chain use broadband internet connections, WAN optimization can lead to several network optimization advantages. This process would enable centralization of several store-level task applications, including kiosks and electronic transactions. The other benefit of WAN optimization is bandwidth prioritization so that all store applications can run simultaneously without causing network congestion, downtime, and other network management errors.

- **Focus on in-store managerial education:** Rich media devices, similar to other types of applications, have best-practice procedures associated with them that must be utilized for effective use. These best-practices also dictate the type of connection and overall relationship they have with a supporting data network. In order to ensure that this relationship is constantly optimized, in-store managers, who are in front of these devices on a day-to-day basis, should be made privy to best-practice procedures.

- **Consider upgrading to a converged IP network:** Retailers should use centralized voice or data processing through converged IP networks, as they are more cost-effective. Retailers could consider cost-reduction through centralizing data centers as a primary reason for their company’s transition to an IP-enabled network. An IP-enabled network can help companies to re-engineer for VoIP collaboration through a converged IP telephony-based infrastructure.

For more information on this or other research topics, please visit [www.aberdeen.com](http://www.aberdeen.com).
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Related Research

- **The New Point-of-Service (POS): The Core of the Retail Store:** August 2012
- **The Automated Store: The Key to Customer Engagement:** July 2012
- **Elevating Mobile Commerce as an Enterprise-Wide Strategy:** March 2012
- **Mobile and Tablet Shopping Demystified: Adoption and the ROI Business Case:** September 2011

- **State of Multi-Channel Retail Marketing: A Paradigm Shift for Reaching New Customers:** June 2011
- **The 2011 State of Retail Supply Chain Collaboration, Visibility and Integration:** April 2011

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