

Microsoft

SMARTER

Retailing

INITIATIVE

Enabling the next generation of retail innovation

Redefining the Customer Relationship

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SMARTER

Retailing Initiative:

Enabling the *Next Generation* of Retail Innovation

Steps you can take today to build a comprehensive solutions framework that takes advantage of emerging technologies, solves marketplace challenges, reduces costs, and delivers an improved customer experience.

Retailers across the country and around the world are getting smarter. They're getting smarter about the way they collaborate with customers, understand their shopping preferences, and tailor their experience.

These retailers aren't just making small changes. They're reinventing their concept of the *store*. They're redefining the relationship between the retailer and the customer in ways that were not possible before recent advancements in technology.

They're working smarter to satisfy customer needs, and they're doing it with the help of the Microsoft® Smarter Retailing Initiative (SRI).

The beginning of exciting changes in retailing

The retail industry is on the verge of the biggest technological innovation since the introduction of the bar code took the industry by storm 25 years ago.

Just as those little black and white stripes forever changed the way retailers handled checkout, new devices such as personal digital assistants (PDAs), Smartphones (advanced cell phones that combine communications, messaging, calendar, music, and other personal computing capacities) and other wireless technologies are already changing the way consumers interact with retailers. And new advances, such as radio frequency identification (RFID) and biometrics, are poised to have a tremendous impact on the retail industry.

This is where SRI comes in. "Microsoft's Smarter Retailing Initiative is a comprehensive technology and solutions framework for helping retailers prepare for the changes coming to the marketplace in an economical way," says Brian Scott, general manager for Microsoft's Retail and Hospitality Industry Solution Group. "Microsoft is working in conjunction with leading systems integrators, independent software vendors, and others to deliver solutions and services aligned with Microsoft's SRI vision that will help retailers significantly transform and differentiate the customer experience."

SRI in a nutshell

Microsoft's Smarter Retailing Initiative focuses on three key pillars:

**Brian Scott**

*General Manager, Microsoft
Retail and Hospitality Industry
Solutions Group*

**Janet Kennedy**

*Managing Director, Microsoft
Retail and Hospitality Industry
Solutions Group*

“We believe investments at the edge of retail will be the focal point of continued innovation among retailers and the redefinition of the customer value offer.”

Janet Kennedy, Managing Director, Microsoft Retail and Hospitality Industry Solutions Group



- **Smarter Shopping** is about enabling retailers to leverage their existing IT investments to create a seamless and personalized retail experience that not only delivers what shoppers want when they want it, but leverages digital devices such as cell phones and PDAs that shoppers and employees are already using.
- **Smarter Selling** is about helping retailers maximize sales and satisfaction through labor deployment and by empowering employees with the product and customer information necessary to improve customer interaction.
- **Smarter Operations** is about improving efficiency and collaboration, and providing real-time visibility into the metrics that drive profitability.

Innovation at the “edge” of the retail enterprise

Microsoft’s Smarter Retailing Initiative flows from the company’s belief that there are many opportunities to innovate and create value in retail today, and that these opportunities lie primarily at the edge of the retail enterprise.

The edge is where retailers interact with customers in all sales channels, manage their supply chain, or weave in new technologies. “It is the visible face of the retailer where true branded differentiation is articulated in the store’s layout, in the product merchandising, and in the customer’s shopping experience,” explains Janet Kennedy, managing director of Microsoft’s Retail and Hospitality Industry Solutions Group. “We believe investments at the edge of retail will be the focal point of continued innovation among retailers and the redefinition of the customer value offer.”

Recent research supports this idea of innovation at the edge of the retail enterprise. According to the *Twelfth Annual Retail Technology Study: Retail Rebound: IT Initiatives Grow Aggressive*, published by Gartner and RIS News, investment in solutions at the core of the retail enterprise are slowing or on the decline, indicating a shift in focus towards the edge.

“Historically retailers have been more interested in how a store looks from a

merchandising perspective than how it operated technologically,” says the study. “There is intense focus on upgrading in-store processors along with high bandwidth to stores, which indicate that retailers are preparing for a multi channel retail world.”

Leveraging the consumer’s technology investment

The power of SRI is its ability to leverage the investments your customers have made in technology. “Microsoft believes consumer use of technology will become a key enabler of SRI,” says Scott. “In increasing numbers, consumers are using smart devices as part of their everyday lives in ways that will allow them to interact in a different and powerful way with forward-thinking retailers.”

Leveraging your customers’ technology investment can help transform the customer-to-store relationship while reducing your technology capital investment in the store. And much of this technology is already in place: IDC predicts Smartphone sales of 30 million units in 2004—up 111% from 2003—and the global Smartphone industry is projected to triple in size during 2004. As these technologies become more commonplace, Smartphones can become a vehicle to communicate with and identify most-frequent shoppers.

Customers’ devices will not only serve as information kiosks but could even become the POS device enabling check-out or access to product information.

The power of industry standards

Microsoft has been working closely with the Association for Retail Technology Standards (ARTS), the standards division of the National Retail Federation (NRF), to improve the use of technology in the retail industry.

As a result, Microsoft’s Smarter Retailing Initiative is built on open industry standards such as XML, SOAP, and UDDI, as well as retail-specific standards, including ARTS’ IXRetail and Unified POS (Microsoft OPOS), EPC Global, and UCCNet.

“We think that too large a burden has been placed on retailers to deploy, integrate, and support technology,” says Scott.

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HP AD

“Microsoft believes consumer use of technology will become a key enabler of Smarter Retailing.”

Brian Scott, General Manager, Microsoft Retail and Hospitality Industry Solutions Group



“We believe that retailers should be spending their time and money around business processes that align around their strategic initiatives—and that technology companies should deliver technology that integrates within their own products and with solutions from other technology providers in a standardized way.”

Using this standards-based approach, you can leverage existing investments in legacy systems and unlock data stored in these systems. Microsoft delivers an integrated platform for both Microsoft and heterogeneous environments, allowing retailers to focus on innovation to deliver increased business value.

Through integrated innovation, technology can enable retailers to connect directly with their customers and drive value from that interaction.

Supported by leading retail partners

SRI has the active support of more than 25 leading retail partners, all of which have committed to delivering solutions and services that align with the Smarter Retailing vision using Microsoft's .NET Framework, the programming model for building XML Web services. These companies include:

Accenture, BlueCube Software,

BearingPoint, Cap Gemini, Cisco Systems Inc., CRS Retail Systems Inc., Dell, Eatec Corp, Fujitsu Transaction Solutions Inc., HP, Infosys Technologies Ltd., Intel Corp., JDA Software Group Inc., Manhattan Associates Inc., NCR Corp., NSB Group, OPENFIELD Solutions, ProClarity Corp., Radiant Systems, Retailix Ltd., Siebel, SmartClixx LLC, Sweda Corp., Symbol, Sysrepublic, Trax Retail Solutions, Wincor Nixdorf Inc. and Wipro Ltd.

The next generation of retail innovation is here

The principles and technology behind SRI can help you create a differentiated customer experience that will drive greater economic value from your retail business. In the following pages, you can read more about SRI—and see how Microsoft and industry partners such as Trax Retail Solutions, CRS Retail Systems, ProClarity Corp., HP, and Intel are making SRI a reality. Specifically, you'll see examples of SRI at work in identifying customers when they enter the store, eliminating out-of-stocks, reducing shrink, and improving store operations. ■

For more information about what Microsoft's Smarter Retailing Initiative can mean to you, visit www.microsoft.com/smartretail to download the SRI Business Overview white paper.

Preparing for the Digitally Enabled Consumer

Online sales are expected to account for 10% of total U.S. retail sales by 2008. And when these Internet-savvy shoppers turn off their PCs and head to the mall, they want their in-person shopping experience to be similar to what they experience online.

They're used to being in control of the transaction. And they like having the information they need to make purchase decisions right at their fingertips. Yet they also like being able to see, touch, and wear the merchandise—experiences that have yet to be offered online.

These new customer shopping demands are compelling retailers to create a seamless technology environment that connects the retail enterprise to the store and the store to the consumer. For example, Smartphones can serve as information kiosks and be transformed into devices that can enable self-checkout or product information lookup. Here are a few more examples of emerging technologies that will help you prepare for digitally enabled consumers.

Wireless Everywhere. Tomorrow's customer will always be connected. That means he can gather product information—and competitive prices—from the wireless web even while shopping in your store. You

can harness the power of wireless to send targeted promotional offers to customers who opt-in for them.

Download Kiosks. In-store kiosks can do a lot more than provide customers with product information or a way for customers to “check in” to the store. They will also enable customers to download everything from software to CDs to movies.

Self-service Kiosks. Customers are already using specialized terminals to complete their own sales transactions or buy their own movie ticket. These self-service kiosks are now starting to enter all segments of the industry, including fast food. Soon they will be entering into many areas, such as rental cars and hotels—where they will let guests check themselves in and select their own rooms.

Biometrics. Biometric systems verify identity by measuring human fingerprints, retinas and irises, voice patterns, facial patterns, or hands. A biometric device can offer customers speedy checkout options with a secure, simple scan of a finger, enable consumers to be readily recognized when walking into a store, and provide overall enhanced security for consumers concerned about protecting their identity.

ProClarity



SMARTER Shopping:

Improved Service, Convenience and Information

Smarter Shopping enables retailers to leverage their IT investments and unlock key data to create a seamless, personalized, informative, consistent and convenient customer experience across all sales channels.

Smarter Shopping is about creating the perfect shopping experience. It means giving customers what they want—in the right way, in the right amount, in the right location where it is convenient, easy, and compelling to buy (online, in the store, or over the phone). That includes giving customers access to the information they need to make more informed purchases.

The Smarter Shopping environment is the perfect alignment of customer intent with retailer content. It's a unique, inviting, and inspiring place that makes shopping convenient in a number of ways, such as multi channel kiosks, the Internet, knowledgeable sales associates, and merchandise displays. It also accommodates digital devices—such as the cell phones and PDAs that customers are already using—to enrich the experience.

This all may sound like a tall order. But the comprehensive technology and solutions framework driving SRI give you what you need to make the Smarter Shopping vision a reality.

Giving customers what they want

Part of Smarter Shopping is giving cus-

tomers what they want. But what do they want? Over the past year, Microsoft has invested more than \$6 billion to research and develop innovative solutions to help businesses meet consumer needs. In addition, other industry-focused research indicates that retail customers want three key things:

Service – Customers enjoy having their needs and wants anticipated and met. Successful retailers have proven the key to customer retention is providing a level of service that makes the customers feel wanted and valued.

Information – Access to relevant information—either through kiosks conveniently located throughout the store or the customer's own digital device—is critical for helping customers shop smarter. Customers can make decisions on the spot, saving time and enjoying peace of mind. For example, a customer can quickly determine whether an over-the-counter medication conflicts with a prescribed medication she is taking. Customers can use these same kiosks or devices to learn from other customers who have added comments at the store's Web site.

Inspiration – Customers looking for gift-giving ideas can be inspired by suggestions and information placed in the perfect location and categorized in a way that makes it easy to find the ideal gift. Electronic signage, video advertisements, displays, fixtures, and products can all inspire gift givers.

Smarter Retailers engage their customers by providing the imagery, sound, and movement that can transform an ordinary experience into an extraordinary one.

Whether it's service, information, or inspiration, Microsoft expects its customer-centric technology to become a key enabler of Smarter Shopping.

Identifying customers when they check in, not out

Customers check in at airports, hotels and even their office. Why not have them check in when entering a store? This concept is not foreign in retail. Membership clubs require check-in at the front of the store today, but they do not leverage the fact that customers are identifying themselves at this point.

This "opting in" could open up a whole new world of customer relationship management. For example, if a customer opts to be identified upon entering your store, you can provide relevant coupons and promotions at that point— instead of when the customer is checking out. That gives you a much better chance of influencing the shopping experience and creating the inspiration, delight, insight, and ultimate service that customers want.

You can also use opt-in information to acknowledge that a preferred customer has entered the store, and act accordingly by making sure a sales associate is deployed or a special checkout lane is open to accommodate this valued, high-volume, frequent shopper—one of the store's best customers.

Technology for identifying customers upon entry to the store is available today. Newburgh, NY-based CRS Retail Systems has developed a product called CRS RetailCRM™ that allows you to recognize customers in any store or sales channel and provide personalized services and offers; perform in-store clientelling; and

track and analyze recency, frequency, and monetary value of preferred customers. This enterprise customer view can support functions at POS and can be used to handle check-in from a kiosk at the front door of a store or by using a wireless device.

Using kiosk technology to meet customer needs

Kiosks are enabling retailers to better meet customer needs by offering access to product information when and where they need it. Multi-display kiosks offer a friendly customer interface and are conveniently located throughout the store sales floor.

This technology is being widely used by music stores. Rather than maintain racks of music CDs that take up hundreds of square feet of space, music retailers can strategically place kiosks where they are convenient for the consumer. Shoppers can access information when and where they need it, browsing by title, artist and genre—or get suggestions based on customer profile information captured when they swipe their loyalty card.

Taking the customer experience to the next level, a kiosk powered by Windows® XP Embedded—with its native support for Windows Media® Player, DirectX®, television technologies and dual displays—can present a music video for a particular artist on one screen, show the jacket covers on another, and display music reviews from a variety of sources, including other customers who have bought the album.

In essence, kiosks give shoppers the rich universe of information with the look-and-feel they are used to from shopping on the Web—with the added benefit of being able to walk out of the store with the actual product in hand.

It's smart to improve the customer experience

If it makes the retail experience better for the customer, that's Smarter Shopping. And it's easy to see that the smartest shopping environment—one that's inspiring, provocative and ultimately attractive to your target customers—can build customer relationships resulting in improved customer loyalty and an increase in sales. In the long term, those relationships are the real key to retail success. ■

Improving Customer Loyalty

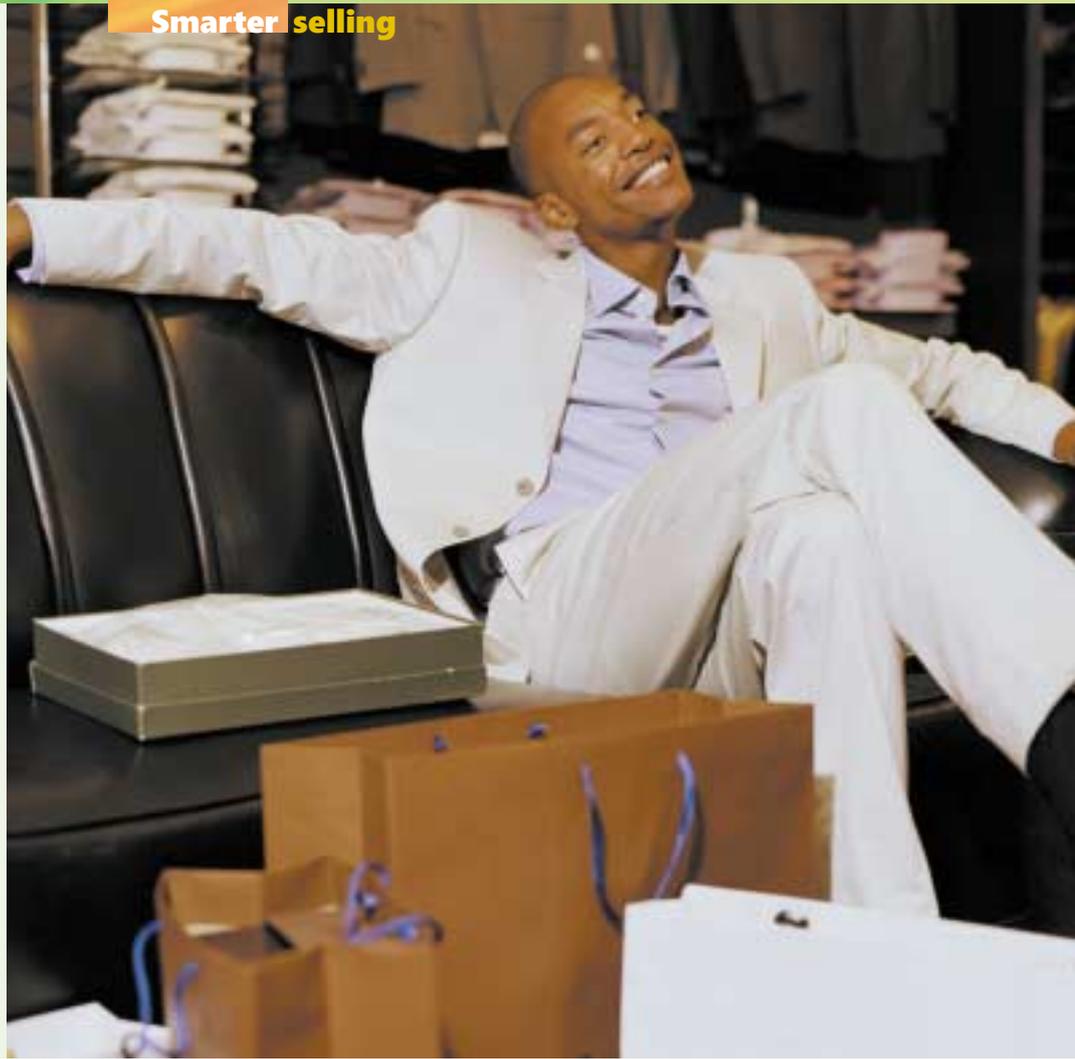
Considering recent advancements in technology and retailing, it's easy to envision a future in which a frequent shopper comes into a store, swipes her loyalty card at a kiosk, and gets coupons to use on that shopping trip.

But to be truly personal, these coupons can't be random—they must be targeted at that consumer and her demographics and buying behavior. They should also have a high affinity for other products the customer has purchased in the past in order to encourage additional purchases.

ProClarity's analytical solutions—built on Windows Server System™—have the ability to power this kind of solution. By combining basic demographic data from the customer's profile with POS data, these solutions can enable you to offer customized promotions specific to the products and services that are most likely to appeal to that customer.



Smarter Selling helps retailers maximize sales and satisfaction by empowering the people who interact with customers. It includes real-time solutions for product location, inventory, customer relationship management, and labor deployment.



SMARTER Selling:

Empowering the Workforce and Delivering Value and **Personalized** Experiences

Smarter Selling is at the essence of retailing: managing multiple channels on a daily basis that consistently meets customers' needs and treats them as individuals.

After all, that's how retailing began—with one-to-one service and a sales approach designed to meet needs, not simply make the cash register ring. As these retailers quickly discovered, meeting customer needs is the single most important means of increasing sales. But this individualized, focused relationship has been on the decline over the past 50 years.

Where salespeople once knew their products intimately, knew their customer's preferences and shirt sizes, and where high-touch service was the norm, today's retail environment can be impersonal, with a bewildering mix of products (and services) matched up with poorly trained personnel and lightly staffed stores.

CRS Ad 3

Eliminating out-of-stocks and saving the sale

When your store is out of an item, you can lose more than a sale. You can lose a customer. Calling another store to check availability ties up two employees and still doesn't ensure that the product will be there when the customer goes to get it. CRS EnterpriseSelling can Save-the-Sale™ by letting sales associates search real-time inventory availability from any point of customer interaction—whether it's a sales counter, kiosk, call center, online, or wireless device. The sales associate can then process the order and complete the transaction right at POS. The order is routed in real-time to another store or DC for fulfillment.

Moving ahead by going backward

Smarter Selling leverages technology to recreate the sales experience of generations ago in today's retail environment by providing key product information in a real-time environment.

For example, in today's competitive retail environment, Smarter Selling solutions enable sales associates to better serve customers by:

- Understanding the products they are selling
- Having detailed information about the product and its various uses
- Locating the product inventory across multiple channels
- Recognizing the additional products and services that could add value to the purchase
- Understanding individual customer preferences

One of these solutions—CRS EnterpriseSelling™ from CRS Retail Systems—has real-time inventory and order management features that put information at the fingertips of the people who need it. “CRS EnterpriseSelling enables sales associates to quickly find out-of-stock items a customer is looking for regardless of where the inventory is in the enterprise,” says Kathy Frommer, chief executive officer of CRS Retail Systems.

This same system can be used to educate an often-transient sales force by making every employee as informed as possible about the store's products.

Smarter retailers understand their customers

Smarter Selling means sales associates know more about the customers—about their product preferences and what they may have purchased in the past, which enables the sales associate to make more intelligent suggestions on the spot.

And Smarter Selling is unique to every retailer because it's drawn from their own knowledge base, custom product assortment, customer list, and set of business rules. By using these solutions, a 21st-century retailer can restore the time-honored personal elements of retailing while embracing technologies that can enhance overall efficiencies.

Boise, Idaho-based ProClarity Corp. understands this need and has developed powerful analytical solutions that help retail organizations understand consumer buying behavior and capitalize on that information to influence future purchases.

“Our solutions can show a retailer everything from the specific demographic clusters of its customers to the average market basket size by personal characteris-



tics,” says Clay Young, senior vice president of Strategic Marketing at ProClarity.

This information not only enables a retailer to develop a product mix that's most appropriate for its specific customers, but can also help it target promotional activities. “We can apply demographic profiling of various sub-segments of a store's target group to help the store develop different versions of promotional materials aimed at those sub-segments,” explains Young.

Anticipating and meeting customer needs

A Smarter Selling solution can help retailers anticipate the customer's needs even before they are expressed. One way is by using transaction patterns based on hundreds—if not thousands—of past purchases to drive additional sales. If you've ever seen Amazon.com's “Customers who purchased this item also purchased these items” feature, then you're already familiar with this idea.

Now think of how it can be applied in a retail environment. Sales associates can use this technique and individual customer

data to suggest cross-sell and up-sell products, tie in Internet customer feedback (providing an informal “customer report”) and suggest a complete solution based on the customer’s purchasing history.

ProClarity, with its suite of analytical solutions, makes it easy to tap into just this kind of customer information. On a broader scale, these same solutions let you analyze sales activity so you can find out immediately which products you should promote, what inventory you should buy, and what you should discount.

“Our software can analyze your sales data and give you a clear picture of what’s happening within each store,” says ProClarity’s Clay Young. “You can quickly see the characteristics of the best and worst performing stores and then analyze store clusters, such as warm and cold climates, in order to optimize inventory and promotions for local preferences,” he says. “ProClarity helps you easily determine what inventory should be in a store, what should be promoted, and, when it’s not moving, how to get it off the shelf.”

The result of these Smarter Selling methods: more personal relationships, more sales and more satisfied customers.

Cross-channel integration increases customer loyalty

Many retailers are already applying the power of cross-channel integration to their physical stores. Enabling a customer to order an item online and pick it up at a retail store is one example of this cross-channel integration—and is another aspect of Smarter Selling.

CRS EnterpriseSelling supports this level of integration. The product’s Order Manager module manages real-time customer orders between selling and fulfilling locations. It allows sales associates and customer service representatives to sell products located at other locations and manage those orders from any point of interaction, including point-of-sale and customer service center.

In a Smarter Selling environment, retailers can also use the Internet to capture a customer’s buying intent—and use

this information to create opportunities to provide additional services that strengthen customer loyalty.

For example, a grocery customer planning a major shopping trip can create a shopping list online and have it automatically communicated to the local store. The store reacts accordingly by sending staff to help with the big-ticket visit and perhaps opening up a separate lane especially for that customer with the \$250 grocery tab.

Reducing IT maintenance costs while delivering increased business value

Retailers spend as much as 60 to 80 percent of their IT budgets to maintain legacy systems—money that could be better spent implementing Smarter Selling solutions that can help grow sales and improve customer satisfaction.

Smarter Selling addresses this situation by delivering an integrated platform for both Microsoft and heterogeneous environments, allowing retailers to focus on innovation to deliver increased business value. Microsoft and its partners are working to help retailers integrate vital information about the store, its products, its financials, and other core enterprise information with consumer-facing innovations.

This approach enables you to focus on delivering product and customer information to the people who need it the most: your sales associates. At the same time, it enables you to give customers multiple options of handling product searches and transactions themselves.

Meeting needs maximizes sales and satisfaction

Smarter Selling puts as little as possible between your sales associates and the sale by giving them the information they need to satisfy customers. It provides you with solutions that meet customer needs for product information and excellent service, and also gives you the knowledge to offer customer-specific products and promotions that fulfill their needs.

By empowering your workforce, Smarter Selling lets you deliver the value and personalized experiences that exemplify Smarter Retailing. ■

Making it easier to move to an open POS system

The HP rp5000 platform—which takes advantage of Microsoft’s .NET and Windows XP Embedded technologies—allows retailers to replace older POS systems with ones that can link to legacy applications through solutions and software that vendors are producing as part of SRI. The rp5000 is also customized to withstand the rigors of the retail environment, offering enhanced peripheral support via powered serial and USB ports, enhanced power and cooling capabilities, and components that combine the functionality of popular proprietary systems with the low price, increased flexibility and manageability of PC-based POS systems.



SMARTER Operations:

Driving Enterprise Efficiency, **Optimizing** Agility

Smarter Operations offers increased efficiency by providing real-time visibility into the information and metrics that drive profitability and enhance productivity, enabling managers to make faster, more accurate decisions.

Smarter Operations empower managers to make faster, more accurate decisions to take advantage of opportunities when they occur in the retail environment. This is critical, since in a fast-paced, highly competitive world, retailers that can keep pace with changing market conditions in real time are more likely to be successful than their competitors.

Higher performance starts with the basics

It just makes sense that you cannot achieve higher performance unless the basics are covered. If the store itself is sloppy and disorganized, you simply don't have a chance of sustaining customer relationships. As Larry Miller, president of Trax Retail Solutions puts it, "We believe Smarter Retailing is about proper execution of the store operation standards and holding people accountable to executing those standards."

Trax Retail Solution's SmartStore® StoreWalk solution, based on Windows® Server 2003 and SQL Server™ 2000 Enterprise Edition (64-bit), puts every store manager into the best

Trax Ad 4

Driving stockholder value through retail analytics

According to ProClarity Corp., the best way to increase company value is by emphasizing operations that are driven by data, not merchandise. The company says that the right analytic framework lets retailers identify key areas they should consider in terms of improving their operational effectiveness and efficiency. This kind of framework can lower operating costs and improve top-line growth through a better understanding of consumers' purchase behavior and loyalty.



The best way to increase company value is by emphasizing operations that are driven by data, not merchandise.

inspection mode by automating the store walk checklist and adding best practices to achieve the best execution. It helps retailers enhance the store experience by enabling store managers to focus on the key items that comprise store operation standards. States Miller, "We replace paper-based checklists with a solution that lets store managers quickly and efficiently inspect their stores for optimal conditions."

Following the inspection, managers can upload the results to the home office for remote management of all stores' customer service readiness procedures. StoreWalk, which combines wireless technology with knowledge-based store activity monitoring, includes more than 120 store conditions and operational audit points, in addition to periodic aisle inspections.

Achieving improved agility at the store level

Smarter Operations requires enterprise agility at all levels of the organization—especially in the store. This agility applies to both capital-intensive expenditures (layout, fixtures, store controllers, and point-of-sale terminals) and operating expenses, especially in the highest cost center for any retailer: labor.

The first step in enhancing agility—and performance—is understanding what is happening in any store at any time. That's the power of ProClarity Analytics Platform® based on Microsoft SQL™ Server™. Its primary focus is business performance monitoring, which it delivers through a management-level "dashboard" that the operations team can use to see how the entire store system is working.

"Retail operations can use our solutions to track results and trends by store down to the individual product level," says ProClarity's Clay Young. "Most stores are collecting the right data, but they need solutions that can analyze the data multidimensionally—for example, to examine sales by product and by store. Multidimensionality is vital for retailers because managers must consider the interplay of many different variables."

One ProClarity customer used the Analytics Platform to identify and cancel a money-losing promotion, generating savings that more than covered the cost of the new system. "By enabling faster, more informed decision-making, we can help retailers identify customer preference trends, make their pricing and promotions more competitive, increase cross-sales, and ultimately drive profitability," says Young.

Increasing service on the sales floor—not in the back office

A "mobile POS" model that uses wireless technology to redeploy the POS function throughout the store where the customer is shopping brings the sales associate face to face with the customer. That creates an opportunity to enhance the sale and close the deal when customers are ready rather than force them to wait in line to pay. From an operations standpoint, checkout lanes are staffed appropriately to accommodate customer needs.

Smarter Operations wireless solutions can also free store managers from the back office and bring them to the store front to serve customers. CRS MobileStore™ from CRS Retail Systems is a perfect example. It extends store systems capabilities onto the sales floor with .NET-based wireless applications. CRS MobileStore includes inventory management and item lookup features, as well as remote manager authorization that can eliminate the need for a manager to walk across the store to approve a transaction.

That can increase the productivity of both the checker, who doesn't have to wait for authorization, and the manager, who doesn't have to cross the store to provide it.

Getting smarter about shrink

Smarter Operations solutions can address shrink, a well-known issue for the retail industry. One way for retailers to confront the problem is by installing reporting systems that monitor point-of-sale (POS) transactions in real time. These data mining systems look for patterns of fraudulent activity and then flag suspicious POS

transactions for closer examination.

Trax Retail Solutions is a leader in POS data mining and loss prevention. The company's ShrinkTrax® for POS is a solution that gives retailers real-time visibility into cashier discrepancies, irregularities and performance while maximizing customer service and checkout efficiency. "The focus of ShrinkTrax is on profit improvement by preventing shrink loss before it occurs," says Trax Retail Solution's Larry Miller.

ShrinkTrax for POS helps identify abnormal cashier behavior that is consistent with theft, errors, or deception. It monitors more than 40 key performance indicators from the POS system including "no sale" transactions, the number of items scanned, voids, and refunds. The data is then mined, correlated, and put into a report that allows store managers to evaluate the performance of associates.

Enhancing business efficiency through real-time information

Smarter Operations solutions don't need to be complex. But they do need to empower managers to run a smarter business—a business that's efficient and profitable because decisions are made based on enhanced real-time information.

For example, suppose a relatively higher volume of foot traffic enters a store during a given window of time. A simple solution would predict the need to activate more POS terminals at some predetermined interval after the spike in entrance traffic.

Here are some other solutions that can

help improve store operations:

■ **Staffing Levels.** Sensors in one department—say, women's shoes—could detect that foot traffic is high and that only one sales associate is on duty in that department. A Smarter Operations solution would detect the staffing imbalance and dispatch an alert to the store manager, who could reallocate staff from a slower department.

■ **Risk Management.** SmartStore® SweepTrax™ from Trax Retail Solutions automates store aisle inspections, replacing inefficient paper-based checklists with consistent, accurate solutions that can ensure risk management compliance storewide.

■ **Returns.** CRS ReturnsManagement™ enables sales associates to look up original sales receipts from any store or channel and identify the correct price of a return, as well as any return activity that has taken place since the original sale. This comprehensive solution can cut down greatly on fraudulent returns.

Decentralizing store functions to increase effectiveness

Signage is a simple solution for promoting products, and advertising sales and communicating a variety of messages, including pricing. Yet retailers that use signage incur a burdensome cost when you consider the expense of designing, developing, printing, and distributing the signage to hundreds or thousands of store locations. What's more, relying on a central distribu-

The value of real-time visibility

In retail, there's no substitute for knowing exactly what is happening throughout your organization at any time. The SmartStore® Dashboard from Trax Retail Solutions gives managers and executives at all levels of the retail enterprise a consolidated view of vital information about store operations, loss prevention, sales and labor management, inventory control, customer service and more. It unifies data elements from disparate systems to monitor, analyze, and drill-down on the key performance indicators of POS transaction activity, DSD vendor receiving invoices, and even remotely view your digital CCTV.

Building a smarter POS terminal

A smart point-of-service terminal is one that not only rings up sales, but also helps you make more of them. A POS terminal running the Microsoft Windows XP Embedded operating system offers the retail-hardened reliability you expect, the Windows application support and integration you want, and the flexible deployment and management options that you need.

By providing full support for the Microsoft .NET Framework, Windows XP Embedded enables retailers to build smart applications for solutions that integrate disparate systems and data. One example of this kind of application: a loyalty program that uses customer buying histories to offer personalized promotions at the POS. Windows XP Embedded's native support of XML and Web services also enables you to build and deploy applications that can analyze POS information and deliver it—in near real time—across your business.

“Retailers can literally take the unit around the store and create customized in-store signage right where it’s needed.”

Robert Corbett, Director,
Retail Industry Solutions, HP
Enterprise Systems Group

tion center to get appropriate signs to stores can mean lost sales if the signs don’t arrive on time.

A Smarter Operations solution might transfer responsibility for signage to the store manager while retaining central control over the actual design and content of the signs. HP offers an innovative solution that does just that: HP’s rp5000 POS device, combined with an HP printer, allows retailers to print promotional signage on the spot, using design files sent from corporate.

“Retailers can literally take the unit around the store and create customized in-store signage right where it’s needed.”

explains Robert Corbett, director, retail industry solutions, HP Enterprise Systems Group.

Smarter Operations drive down costs, maximize value

Retailers employing Smarter Operations solutions are better prepared to drive costs out of the organization, react to market conditions in real time, and maximize the value of new business opportunities.

Smarter Operations also empowers managers with the right information so they can make timely, accurate decisions to increase store performance, employee productivity, and, ultimately, customer satisfaction. ■

SMARTER Retailing is here, now

Companies such as CRS Retail Systems, HP, ProClarity Corp., and Trax Retail Solutions are proving that Smarter Retailing is not just a concept, but a reality for leading retailers in the marketplace today.

Applications from these companies—combined with the infrastructures already deployed in many retail environments—are beginning to transform retailing. They are improving the shopping experience for customers. They are providing retailers with more effective ways to sell. And they are making store operations more efficient.

Across the country and around the world, retailers are adding new capabilities and realizing improved performance. The value proposition around increased customer loyalty, improved work-force productivity, and streamlined store operations is being proven in the marketplace. The need for competitive differentiation through a more intimate connection with the customer has never been a clearer

imperative for the retail enterprise.

Through a combination of technology and industry partners—such as those highlighted in these pages—Microsoft is dedicated to bringing technology innovation to the retail enterprise to enable store-based business innovation, transform the store environment into a high-performing operation, and bring more value to customers.

And this is just the beginning. Microsoft believes a number of innovative “disruptive technologies” will come to market in the next 12 to 36 months that will become key components in the retailing infrastructure.

SRI can help you implement Smarter Shopping, Smarter Selling, and Smarter Operations in your retail enterprise. ■

Microsoft and Intel: Smarter Retailing Starts With Smarter Technology

Retailers are discovering that delivering better experiences for their customers takes more than the right environment. It also takes the right technology. To reduce their risks, costs, and implementation times, many of the world's leading retailers are working with the specialized retail teams of Intel and Microsoft to deploy smarter solutions that have been successfully tested and scaled in comparable environments.

Smarter Retailing is designed around open standards-based infrastructure and strategies that bring retailers more value through best practices, freedom to choose from a global network of solution providers, and lower total cost. That approach is at the heart of the collaboration between Intel and Microsoft.

These two companies are working with the industry's leading independent hardware and software companies to design and optimize solutions with the unique challenges of retail in mind. By emphasizing an open approach, they are providing retailers with unparalleled freedom of choice and the ability to customize based on their own strategic objectives.

"Microsoft and Intel provide complementary elements of the technology equation and have a shared vision of enabling retailers to build solutions that help them win more customers, increase profitability, and improve employee productivity," says Robert Ferguson, Intel Strategy and Solutions Development Manager, for Retail/Consumer Goods.

"Both companies are investing significant amounts in research and development and—using the lessons learned from successful pilot deployments in retail and other industries—are building a technology roadmap that helps retailers maintain a strong competitive advantage through early and continuous technology improvements," he says. "This investment and guidance provides retailers with the ability to differentiate the customer shopping experience while improving productivity, reaching new customers, and reducing overall operating costs."

Intel and Microsoft are committed to accelerating the convergence of innovative technology and traditional retail processes. They are working with forward thinking retailers around the world to enable their companies to be ready and prepared for the future based on Microsoft's Smarter Retailing Initiative.

"Many tier one retailers are now analyzing how industry best practices can be applied to their own strategic plans," explains Ferguson. "By learning more about how these kinds of projects are planned, scoped, and implemented, retailers can apply ideas to specific initiatives or develop future store concepts of their own. Ultimately, that can provide faster time to value and ROI."

Intel provides an open standards-based foundation that supports the solutions offered by Smarter Retailing partners. This foundation provides a solid base to help retailers realize the benefits promised by Smarter Shopping, Smarter Selling, and Smarter Operations.

Ferguson believes that the most significant areas of opportunity for retailers will come from "unwiring the store" with wireless networks and building a truly consumer-driven supply network. "Imagine the day when a store manager can actually be on the sales floor helping customers and at the same time have access to real-time information for critical decision making at his fingertips," says Ferguson. "Solutions for tablet PCs, laptops, handhelds, mobile point-of-sale (POS), and wireless information kiosks will allow retailers to serve their customers in new ways."

At the same time, these solutions will create new opportunities for cross-selling and up-selling that will help drive the top line. And they will increase employee productivity and provide for advancements in operational areas like e-learning that will maximize retailers' technology investments.

Intel and Microsoft understand the complex business issues facing retailers and together are helping retailers realize the promise of innovative technologies to achieve Smarter Retailing. Along the way, they are working on retail projects that have the potential to change the industry.



Robert Ferguson,
Intel Strategy and Solutions
Development Manager,
Retail/Consumer Goods

"Microsoft and Intel provide complementary elements of the technology equation, and both companies are focused on enabling retailers to build solutions that help them win more customers, increase profitability and improve employee productivity,"



Wireless networks are also helping retailers create real-time environments that link POS systems to signal their consumer goods partners to collapse inventory cycle times.

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Enabling the next generation of retail innovation

For more information about what Microsoft's Smarter Retailing Initiative can mean to you, visit www.microsoft.com/smarteretail to download the SRI Business Overview white paper.

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