IBM

Drive retail success with a flexible,
on demand IT environment.

ON DEMAND BUSINESS™

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Executive summary

The retail world and its challenges constantly evolve. To remain competitive in an increasingly on demand industry, you need to align your IT infrastructure with your business priorities. IBM Middleware Solutions for Retail can help you create a flexible, on demand operating environment that enables you to respond quickly to change. Exploit revenue opportunities. Meet customer needs efficiently. And prepare for the future of retail.

Respond to retail challenges with an on demand infrastructure

Retailers face tremendous challenges every day. Fierce competition. Unpredictable customer behavior. Enormous cost pressures. Their businesses are constantly threatened by a number of market shifts:

- *Consumers demand greater value and personalized service, but their unpredictability makes it difficult to know how to deliver services in ways that can drive loyalty.*
- *Expanding mega-retailers lure away customers, forcing other retailers to clearly differentiate themselves.*
- *Consumer diversification and fragmentation confound traditional marketing methods, which no longer accurately predict customer behavior patterns.*
- *Innovative industry leaders use advanced technology to create business value and outperform their competitors.*

As a retailer, your future success in the on demand world depends on your ability to respond dynamically to opportunities and customer demands. Focus on your core competencies. Bounce back from external threats. And control overhead through variable cost structures. You must deliver a differentiated value proposition tightly integrated with vendors and strategic partners. As well as develop adaptive employees, a collaborative enterprise culture and demand-driven marketing and merchandising.

Use technology to your advantage

Becoming an on demand business requires not only business flexibility, but IT flexibility. An On Demand Business has business processes integrated end to end across the company and with key partners, suppliers and customers and can respond with flexibility and speed to any customer demand, market opportunity or threat. To support your on demand initiatives, technology must become an enabler—instead of a barrier. That's where the on demand operating environment comes in. An on demand operating

environment integrates people, processes and information while simplifying IT infrastructure management. Among its key characteristics, an on demand operating environment:

- *Uses technology as an open framework to help build the flexibility, responsiveness and efficiency that your on demand retail business requires.*
- *Tightly integrates business processes end to end.*
- *Reuses modular components to drive efficiency.*
- *Connects components using industry-specific open standards.*

IBM can help you create an on demand operating environment that connects your disparate resources into a seamless, flexible and responsive organization—aligned with your business priorities. An on demand operating environment can help you:

- *Maximize flexibility by integrating people, processes and information—within and beyond your enterprise.*
- *Focus on satisfying customers and driving revenue.*
- *Lower costs by leveraging existing IT assets.*
- *Maximize resource availability to boost productivity.*
- *Respond quickly to change and prepare for future growth with a modular environment.*

Leverage IBM's retail experience, insight and technology

Today, IBM leverages its in-depth, worldwide retail experience and extensive range of middleware, services and industry-specific software from independent software vendors (ISVs) to solve business problems with business solutions. IBM can transform twentieth-century business operations and extend core middleware capabilities to meet this century's industry challenges.

"Tire-HQ, our WebSphere software-based solution from IBM, is playing an important role in building dealer satisfaction and enhancing productivity across Goodyear's supply chain. Features like real-time communication and order management add value while streamlining business interactions."

— Patrick Hurley, Vice President, Supply Chain, Goodyear North American Tire

IBM has helped top global retailers prepare for and reap the benefits of on demand retail by implementing on demand operating environments for inventory management, item management, store operations and more. Results can include optimized gross margins, minimized operational costs and effective promotions.

IBM named 2004 POS company of the year

FROST & SULLIVAN

2004 · **FROST & SULLIVAN**

**Point-of-Sale Systems
Company of the Year Award**

Frost & Sullivan Awards are presented to companies that demonstrate excellence in their industry through diligence, commitment and innovative business strategies required to advance in the global marketplace.

Solve retail problems with industry-specific solutions

IBM provides unique software and services to address emerging and ongoing demands in the retail industry. IBM Middleware Solutions for Retail—a combination of IBM DB2®, Lotus®, Tivoli® and WebSphere® software—are designed to be integral parts of your on demand operating environment. IBM Middleware Solutions are customized combinations of IBM core middleware and industry-specific middleware that, when combined with application software from IBM's network of independent software vendor partners and industry-specific services, enable customers to build an on demand operating environment. These middleware solutions support your transformation into an on demand business by helping you:

Focus the supply chain

- *Maximize in-stock percentages by purchasing the right products at the right time based on market demand.*
- *Integrate business processes and data with suppliers to boost supply chain efficiency and accelerate product-to-retail shelf times.*

Maximize merchandise

- *Protect margins by minimizing your reliance on markdown selling.*
- *Provide on-time order fulfillment through effective merchandising.*
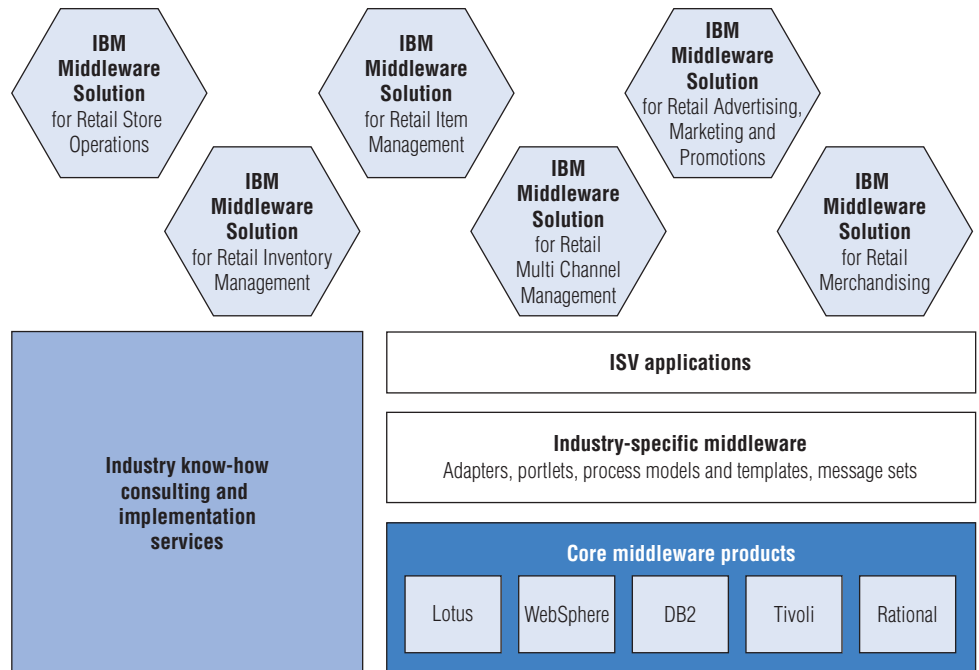
Revolutionize the store

- *Leverage radio frequency identification (RFID) technology to optimize inventory management and minimize stock outs and theft.*
- *Help build the expertise of managers who leverage the consolidated information in automated reports and personalized dashboards to easily identify new opportunities to grow business.*
- *Automate and integrate processes to lower manual-process costs.*
- *Empower employees through self-service e-Learning software and role-based portals to help minimize training time and associated costs.*
- *Streamline operations by increasing visibility into all aspects of processes and product information across the store and automate ordering and replenishment based on product movement.*

Motivate shoppers

- *Offer products and promotions based on customer wants and needs.*
- *Maximize promotional return on investment (ROI), sales and marketshare by developing a deep understanding of your target customers and providing personalized promotions.*
- *Create a consistent cross-channel experience.*
- *Institute multiple touch points for sales and returns.*

IBM has a strong track record of working closely with retailers around the world to deliver comprehensive services and best-of-breed technology that meets their unique needs. In fact, over 50 percent (102 of 200) of the top 200 retailers in the world rely on WebSphere software to run their business.

IBM Middleware Solution for Retail Store Operations

IBM Middleware Solution for Retail Item Management

IBM Middleware Solution for Retail Advertising, Marketing and Promotions

IBM Middleware Solution for Retail Inventory Management

IBM Middleware Solution for Retail Multi Channel Management

IBM Middleware Solution for Retail Merchandising

Industry know-how consulting and implementation services

ISV applications

Industry-specific middleware
Adapters, portlets, process models and templates, message sets

Core middleware products

| Lotus | WebSphere | DB2 | Tivoli | Rational |

An overview of a middleware solution

Build a retail on demand foundation

IBM Middleware Solutions, comprised of IBM core middleware products and industry-specific middleware, can help retailers create an on demand operating environment. Consulting and implementation services from IBM and applications and services from IBM Business Partners complement these IBM middleware solution components. IBM Middleware Solutions for Retail meet specific retail challenges and offer tailored benefits.

IBM Middleware Solution for Retail Store Operations

Includes middleware components that are part of the IBM Store Integration Framework—a store-level Web services architecture designed to provide a complete and reliable infrastructure for retailers to overhaul business processes and effectively support today's demanding retail environment. Based on open industry standards, the IBM Store Integration Framework helps provide a technological foundation for on demand store environments, allowing you to easily "snap in" wireless devices and ISV applications. Speeding time to value. Simplifying the adoption of new applications and devices. And enabling you to leverage existing investments in point-of-sale (POS) technologies by integrating them with the rest of your store environment.

Leverage the IBM Middleware Solution for Retail Store Operations to implement an on demand infrastructure that enables you to run your store effectively and efficiently through the enhanced expertise of managers, optimized labor management, well-managed inventory and connected systems. Using this middleware solution, you can leverage computing, database and business activity monitoring technologies to deliver a true real-time, integrated store application infrastructure that provides inventory tracking and optimizes employee and manager productivity.

IBM Middleware Solution for Retail Inventory Management

Helps optimize your on demand inventory management environment because it helps centralize and automate tracking of goods as they move through the supply chain. With the ability to augment current barcode use, you can automatically track inventory by individual stock keeping units (SKUs)—from the warehouse to the distribution center to the store stock room—using RFID technology. Automatically capture the receipt of inventory when the supplier delivers goods and when they get transferred to the store. And efficiently link product availability data to your core enterprise applications.

"The combination of WebSphere and DB2 software, Linux$^®$ and IBM @server$^®$ systems gives us an affordable, resilient, function-rich IT infrastructure for our mission-critical POS application."

— Harry Bekkema, Application Team Lead, Mark's Work Wearhouse

This degree of automation can help minimize lost revenue and stock-carrying costs due to incorrect shipments and stock outs. Help avoid manual processes currently used to match purchase orders with invoices and shipping notices to maximize supply chain efficiencies. Boost customer satisfaction by matching production and inventory to customer demands for individual items. Locate inventory rapidly for customers using each sales channel. RFID product tags also help minimize theft by raising an alarm at exits if products are not read at a checkout.

IBM Middleware Solution for Retail Item Management

Provides a fully automated and integrated set of global data synchronization and product information management processes. By avoiding manual processes, this solution helps minimize errors and bottlenecks in managing enterprise-wide product information, minimize per-SKU costs and decrease the time required to synchronize product information. This solution helps you synchronize your product information to accelerate product-to-retail shelf times to help you compete effectively. Plus, by synchronizing data into applications within and outside your enterprise, you can seamlessly trade item information with suppliers and customers. The result? An efficient supply chain that can help you maximize in-stock percentages of raw materials and finished goods and minimize unnecessary supply chain costs, including those associated with collecting and correcting item data received from partners.

IBM Middleware Solution for Retail Multi Channel Management

Integrates information from multiple sales and fulfillment channels to provide a single view of the customer across different channels, such as a store, a catalog and the Internet. This consolidated order platform helps streamline order processes, minimize

associated costs and optimize customer satisfaction and loyalty by creating a consistent, personalized buying experience—from any sales channel. Concurrently, the ability to capture lost sales opportunities through alternate channels and source fulfillment can help fuel revenue.

IBM Middleware Solution for Retail Advertising, Marketing and Promotions

Helps design and execute effective advertising and promotion plans through a collaborative workspace that ties together advertising, marketing and promotion efforts. This solution can provide a single repository for product images and a consolidated view of campaign activity, advertising assets and promotion results. Helping you efficiently plan and implement targeted, effective campaigns and advertising plans, this solution can help retailers offset soaring advertising costs and optimize customer shopping experiences. This can drive promotional ROI, sales, customer loyalty and marketshare.

IBM Middleware Solution for Retail Merchandising

Helps maximize merchandising effectiveness by consolidating relevant product and sourcing information from disparate sources into a single, role-based user interface. For example, this solution provides real-time access to data collected from the POS transaction log (TLOG), historical buying data, pricing data and vendor scorecards. Consolidated, up-to-date access to critical information can help your buyers purchase the right products at the right time based on market demand. Boosting availability of merchandise that customers want and need can drive profitability. Minimizing your reliance on markdown selling by accessing real-time sales trends can help protect margins. And driving customer satisfaction through on-time order fulfillment can influence customer loyalty. By maximizing productivity through automated processes, the IBM Middleware Solution for Retail Merchandising can also help minimize costs.

Get the most from your investments

IBM provides a host of services, systems and highly certified Business Partners to help you gain the most value from your middleware solutions.

IBM has more than 1,200 retail Business Partners.

Services—As the world's largest business and IT consultancy, IBM Business Consulting Services fuses industry insight, best practices, thought leadership and world-class technology, such as RFID, to help provide successful implementations that deliver a sustainable ROI. IBM also offers strategic IT delivery methods, including a portfolio of flexible IBM e-business Hosting™ services designed to provide you with affordable, continuous access to a scalable, security-rich, on demand operating environment.

Systems—IBM and Business Partners offer leading-edge, customer-facing hardware, including wireless handheld devices, kiosks and POS systems. Moreover, IBM can help integrate these solutions across your enterprise. For your back office, IBM offers the comprehensive portfolio of IBM on demand solutions built to meet a vast spectrum of business needs, enabling you to design a comprehensive solution for your retail environment.

Business Partners—IBM Middleware Solutions for Retail provide a world-class foundation for your solutions, and applications provided by an extensive network of industry-focused ISVs complement the full solutions. IBM ISV Business Partners provide leading industry-specific business applications that run on IBM middleware platforms. Examples include applications for enterprise resource planning, merchandise planning and supply chain management.

Experience the future of retail today

Future retail challenges are inevitable. But with strategic planning and the right technology to support your on demand initiatives, you can achieve competitive advantage. IBM can help you become an on demand retail business by enabling you to build an adaptive on demand operating environment. Industry-specific middleware can be used to tailor solutions that accommodate new applications from best-of-breed vendors, enabling you to streamline processes, minimize operational costs, create lifelong customer relationships, generate revenue and protect your existing technologies. On demand retail isn't just the future—it's the present. Experience it right now.

For more information

To learn more about IBM Middleware Solutions for Retail, including case studies and more detailed information about solution components, call your sales representative or visit **ibm.com**/software/industries/retail

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