

## Store Integration Framework

*IBM Store Integration Framework*

*Sales reference guide*



## Summary

To support on demand operations, retailers must develop integrated store infrastructures that facilitate the realtime sharing of valuable customer, product, inventory and sales information between store-wide systems and enterprise business applications. The environment must provide consumers with focused information and services, such as inventory lookup, pricing and loyalty program information, along with a unified view of the retail environment. In addition, employees must have access to important customer and business information to help improve productivity and performance.

Based on Internet and Web services technologies, IBM Store Integration Framework helps create an on demand operating environment for the retail store. It provides a customizable, comprehensive solution for overhauling retail IT environments. It enables a resilient, adaptable store environment that supports around-the-clock operations, and facilitates the effortless exchange of store data and business logic with enterprise systems. Designed specifically for store environments, IBM Store Integration Framework leverages retail industry and technology standards to help reduce IT implementation costs by allowing access to and use of existing business logic. The Framework is key to cost-effectively connecting and synchronizing business processes to create on demand stores.

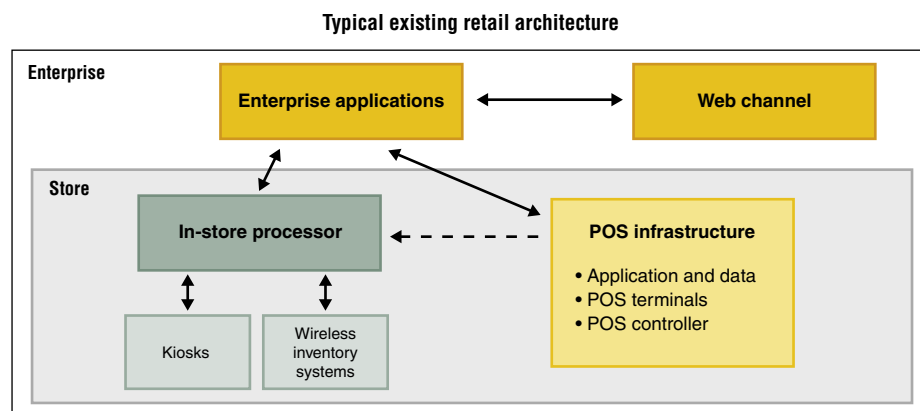
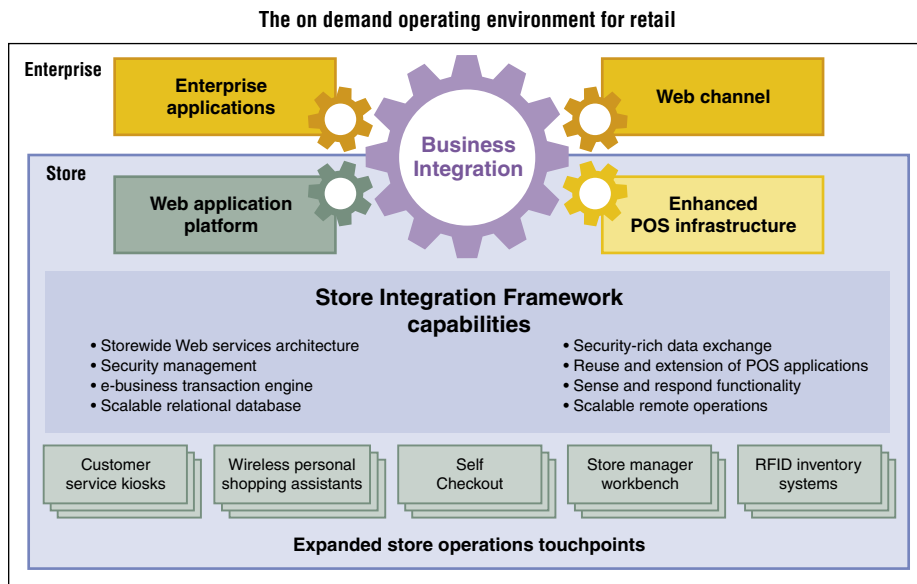


Figure 1

Figure 1 shows an example of a typical existing retail store architecture. The lack of continuity in business processes and operations makes it difficult to develop a single, coherent view of customers. It is also difficult to present a unified view of the business to customers.



*In contrast, figure 2 shows how the industry-standards-based Store Integration Framework is designed to help allow you to snap in new leading-edge wireless devices and retail applications with existing solutions. Retail executives will find that the Store Integration Framework facilitates realtime monitoring of sales performance in stores, and supports the deployment of new devices that enhance the consumer and employee experience.*

Figure 2

## Key messages

### 1. IBM Store Integration Framework enables an on demand store environment for enhanced business performance

IBM Store Integration Framework can help retailers deliver a superior customer experience to enhance loyalty and motivate spending. Through streamlined implementation of applications and devices that provide customers with targeted information, retailers can personalize relationships and respond more quickly to consumer demands. By providing a means to deliver realtime product, inventory and customer information to employees anywhere in the store, IBM Store Integration Framework can also help facilitate manager and associate decision making to enhance productivity. Plus, realtime data can be used to help reduce fraud, and efficiently manage labor and inventory processes to drive out costs. And because it is built on industry standards, IBM Store Integration Framework allows retailers to snap in leading-edge business tools, such as wireless devices and third-party applications.

### 2. IBM Store Integration Framework transforms store processes with a comprehensive application platform and integration suite

Retailers require a comprehensive integration solution that can link everything from legacy POS systems to handheld devices to enterprise business applications. IBM has combined its expertise in business integration with vast experience in developing and implementing retail and POS solutions to create an infrastructure designed to address store-level needs. IBM Store Integration Framework enables retailers to connect and manage their operations more efficiently, using retail industry and technology standards and a common systems management infrastructure. As a result, retailers are not limited to the applications and devices of a single vendor, and can easily extend existing tools, such as POS solutions, to share data across other store applications.

**3. IBM Store Integration Framework enables you to establish a store-level, Web services architecture that will be viable for years to come**

IBM Store Integration Framework enables retailers to create a Web services environment for customer service, employee productivity and store operations applications. Web services – a set of Internet-based industry standard methods that enables simplified programmatic connections between applications – is the emerging standard for intra- and intercompany applications and business processes. And IBM Store Integration Framework enables you to create applications that dynamically interact with Web services via tools designed to integrate data from heterogeneous applications.

**4. IBM Store Integration Framework integrates key data sources with customer touchpoints to enable new consumer services storewide**

IBM Store Integration Framework opens up access to critical POS information for both store and enterprise applications via a message-based data transfer tool that facilitates data translation to industry standards. It enables retailers to project POS functionality to touchpoints throughout the store, such as kiosks, handheld sales tools and self-service scanners. It also provides a Java™ technology-based POS application extension environment, and Web services and Java application programming interfaces (APIs) for existing POS applications. Plus, by delivering information via standard browser technology and a thin-client approach, IBM Store Integration Framework helps overcome the challenges associated with proprietary mobile computing platforms.

**5. IBM Store Integration Framework uses open standards to support data sharing across diverse applications**

IBM Store Integration Framework leverages common business objects and industry open-standard technologies to facilitate interapplication communication. Built on industry standard Java 2 Enterprise Edition (J2EE) platforms throughout – from the Web application server to the POS application extensions – IBM Store Integration Framework comprises standardized components that can be easily reused across applications. As a result, it helps make the application development and integration process simpler, more efficient and cost-effective.

## IBM Store Integration Framework on demand

Features	Benefits	The retail on demand connection
Delivers a flexible system, process and application integration infrastructure that is built on industry standard J2EE technology	<ul style="list-style-type: none"> <li>Enables retailers to create and integrate browser-based applications and business systems using standardized components</li> <li>Helps make the application development process simpler, more efficient and cost-effective</li> <li>Helps support store infrastructure needs in the future</li> </ul>	Take out costs
Provides advanced data integration capabilities: <ul style="list-style-type: none"> <li>Converts POS data into XML and IXRetail</li> <li>Translates IBM TLOG data to IXRetail POSLog formats</li> <li>Transfers data with a choice of messaging protocols:               <ul style="list-style-type: none"> <li>Java Message Service (JMS)</li> <li>Simple Object Access Protocol (SOAP)</li> <li>Hypertext Transfer Protocol (HTTP)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Unlocks data from the POS, and enables it to be easily integrated within store technology environments, facilitating realtime data exchange</li> </ul>	Take out costs Empower employees Transform the customer experience
Flexibility to extend POS business logic to in-store wireless devices and applications via an open, Java-based API	<ul style="list-style-type: none"> <li>Enables POS business logic to be accessed through customer and employee touchpoints to improve business processes and customer service</li> </ul>	Empower employees Transform customer experience
Faster, simplified integration of browser-based applications in the store and across the enterprise, as well as intuitive navigation, managing devices and I/O support	<ul style="list-style-type: none"> <li>Enables retailers to provide information to customers and employees without having to build data bridges</li> </ul>	Take out costs Empower employees Transform the customer experience
Standard, assured message delivery with IBM WebSphere® MQe	<ul style="list-style-type: none"> <li>Facilitates realtime communication between business applications and processes</li> </ul>	Empower employees Transform the customer experience
ANSI SQL relational database built on DB2® Information Management Software to manage information within the store environment, and priced and sized for the store	<ul style="list-style-type: none"> <li>Synchronizes data between store and enterprise information management systems</li> <li>Allows local data storage to support customer-focused store operations</li> </ul>	Empower employees Transform the customer experience
Advanced systems management capability at the store and enterprise level with Tivoli® software	<ul style="list-style-type: none"> <li>Provides status of most in-store devices to enable proactive management of hardware and software and help avoid service disruptions</li> </ul>	Take out costs Empower employees Transform the customer experience

## Positioning

### Portfolio comparison

IBM Store Integration Framework brings together IBM and IBM Business Partner solutions to deliver on demand capabilities at the store level. It comprises components of the IBM Middleware Solution for Retail Store Operations – WebSphere Application Server, WebSphere MQ advanced messaging, DB2 Information Management Software and Tivoli intelligent management software – and IBM Retail Store Solutions offerings including IBM Data Integration Facility, IBM Store Integrator and IBM Store Application Facility. Combining these industry-leading technologies, Store Integration Framework offers a comprehensive, Web-services-based infrastructure, designed and priced for the store, that can be easily integrated with wireless and wired devices. It can also extend the functionality of IBM 4690 Operating System (OS)-based solutions. Plus, retailers can implement IBM Store Integration Framework as an end-to-end solution, or select components to use as building blocks for transforming their store operations over time.

### Target markets

#### 1. All retail segments

IBM Store Integration Framework is designed to meet the needs of retailers that want to transform their stores into on demand operating environments, or simply link various in-store applications to improve business processes. Although it primarily targets Tier 1 and Tier 2 retail companies, IBM Store Integration Framework can also provide benefits to smaller-sized businesses.

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**Component view**

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Component	Function
IBM WebSphere Application Server	Provides the foundation for a J2EE technology-compliant, Web-based environment for the retail store. It provides retailers with the ability to create and integrate browser-based applications and business components within the store for use on thin devices.
IBM Store Application Facility	Helps retailers simplify the process of integrating browser-based applications within the store and enterprise. It provides easy-to-use navigation, managing devices and I/O support. It also speeds time to deployment and simplifies development processes through the reuse of business objects.
IBM WebSphere MQ	Provides standard, assured delivery messaging for all applications within the store. It helps facilitate realtime communication between applications and processes.
IBM Data Integration Facility	Helps unlock POS information by providing transfer and translation tools to support open standards. Data that has been translated into XML and IXRetail can be easily integrated with existing store technology environments, facilitating the realtime exchange of all types of data with the POS system.
IBM Store Integrator	Delivers an open, Java technology-based API that enables you to reuse existing business logic beyond the POS system via wireless devices and independent software vendor (ISV) applications. It helps retailers enhance the functionality of 4690 OS technology-based applications to optimize existing investments. Providers of applications for other operating systems can adopt this same API.
IBM DB2 Information Management Software	Provides a true American National Standards Institute (ANSI) Structured Query Language (SQL) relational database to manage information within the store environment. It enables retailers to synchronize data between the store and the host as needed and to keep local data that supports customer-focused store operations.
IBM Tivoli Intelligent Management Software	Provides systems management capabilities for the store environment. Tivoli software can provide the status of most devices (for example, POS, kiosks and handheld computers) to help retailers proactively manage both hardware and software in stores. Tivoli software also supports store management from the enterprise level.

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**Specifications**

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**Hardware requirements**

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In-store processor	<ul style="list-style-type: none"><li>• Minimum 1GHz Pentium® III processor and 1GB memory</li></ul>
POS controller	<ul style="list-style-type: none"><li>• Minimum of 1GHz Pentium III processor and 512MB memory</li></ul>

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**Software requirements**

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In-store processor	<ul style="list-style-type: none"><li>• IBM Retail Environment for SUSE LINUX V1 or later</li><li>• SUSE LINUX Enterprise Server 8 service pack 3 or later</li></ul>
POS controller	<ul style="list-style-type: none"><li>• IBM 4690 OS V3R3 CSD04H0 or later</li></ul>

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