

January 2005



**Frequently asked questions about
IBM Store Integration Framework.**

FAQ objective	4
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Section A:

Understanding IBM Store Integration Framework

<i>Q1. What is it?</i>	5
<i>Q2. What can it do?</i>	6
<i>Q3. On which IBM technology components is it built?</i>	8
<i>Q4. On which open, industry standards is it built?</i>	11
<i>Q5. What can it enable my retail business to do that it can't do right now?</i>	12

Section B:

How Store Integration Framework works

<i>Q1. How does it integrate with virtually any point-of-sale (POS) application?</i>	13
<i>Q2. How does it connect with my existing point-of-sale, self-checkout and other self-service applications—and those I opt to implement in the future?</i>	13
<i>Q3. How can it facilitate integration across my retail enterprise?</i>	14
<i>Q4. What kinds of business applications can it connect?</i>	14
<i>Q5. What kinds of in-store devices can it enable?</i>	15
<i>Q6. How many devices and applications can it integrate?</i>	15

Section C:

Benefits of Store Integration Framework

Q1. <i>What are the business benefits?</i>	16
Q2. <i>What are the technical benefits?</i>	17
Q3. <i>Is it right for my retail business?</i>	17

Section D:

Implementing Store Integration Framework

Q1. <i>How can I get started?</i>	18
Q2. <i>What are the steps in the implementation process?</i>	18
Q3. <i>How can I buy it?</i>	19
Q4. <i>How long does it take to install?</i>	19
Q5. <i>What are the maintenance requirements?</i>	19
Q6. <i>What is the timeline for future releases?</i>	19
Q7. <i>How can I find out more?</i>	19

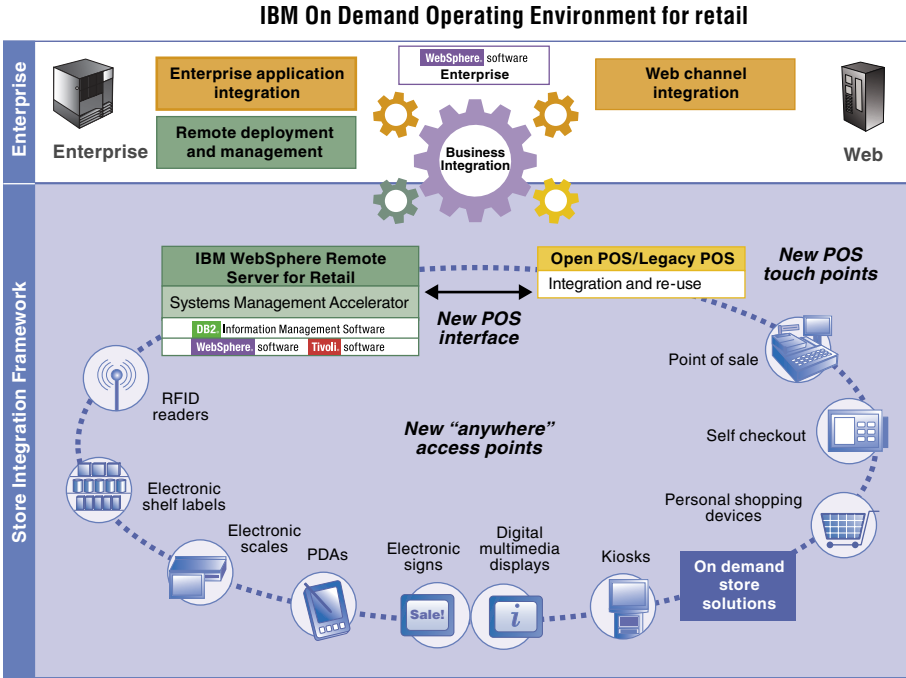
FAQ objective

This FAQ is designed to help answer your questions about IBM Store Integration Framework. We highlight features that deliver the foundation for transforming your retail stores into an On Demand Business environment.

Section A: Understanding IBM Store Integration Framework

Q1. What is it?

A. IBM Store Integration Framework is a technology infrastructure built specifically for the store. It provides bundled, standards-based software and services that are optimized for retail businesses to simplify the creation and support of on demand retail environments. You can use Store Integration Framework to integrate data across multiple channels and customer touch points—including point-of-sale (POS) terminals, kiosks, handheld devices and new wireless technologies, such as radio frequency identification (RFID) technology-enabled electronic shelf labels—to reinvent and differentiate operations using real-time data and intelligent new capabilities. Based on open, industry standards, Store Integration Framework employs a Web services architecture that is easy to install and remotely deploy and support, enabling the creation of on demand retail operations—that are responsive to the needs of both consumers and employees.



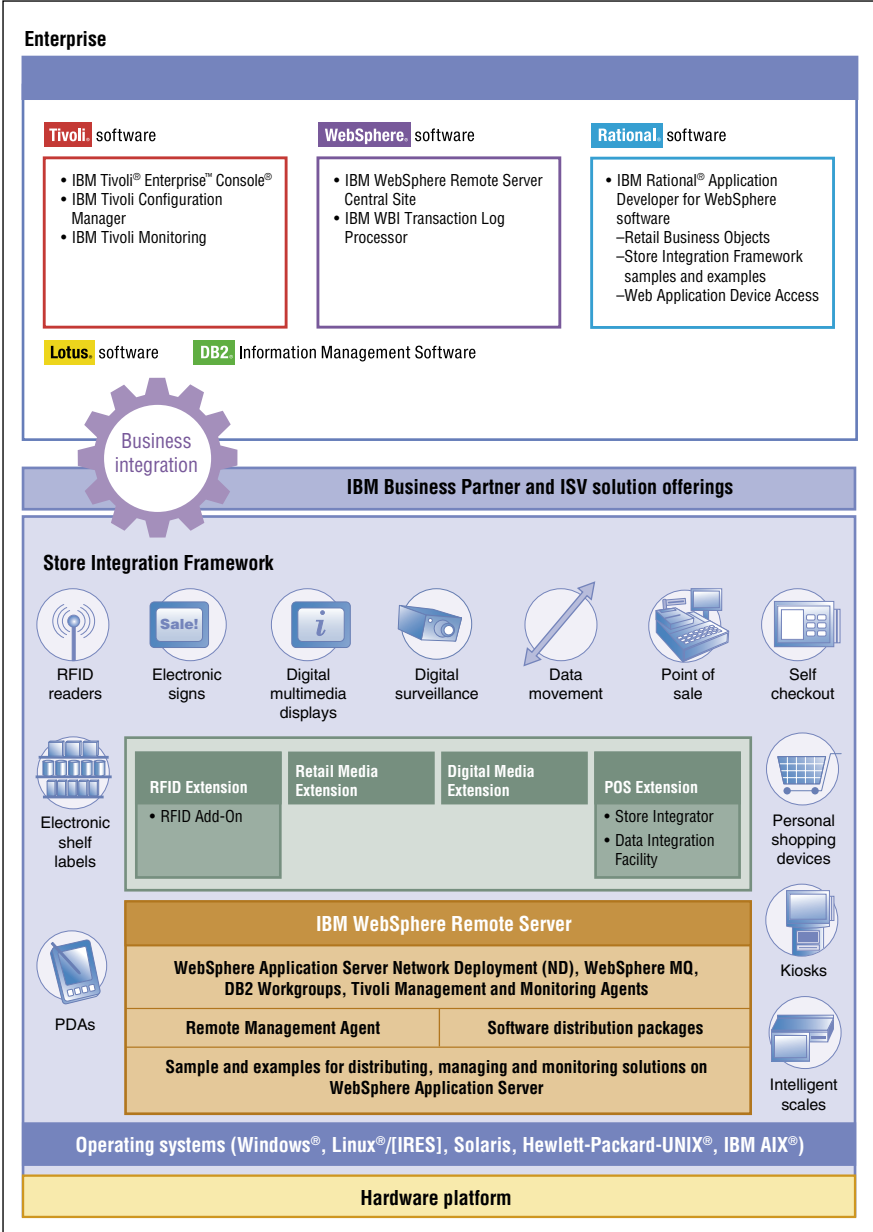
Q2. What can it do?

A. Essentially, Store Integration Framework enables retail businesses to deliver Web-based solutions in the store. It does this by providing a standard integration path that allows retailers to connect islands of valuable store data and business logic—across software and hardware in the store and up to the enterprise—while leveraging existing investments. To understand how this is possible from a high level, it's useful to divide Store Integration Framework into three separate parts that underpin the entire solution.

- IBM WebSphere® Remote Server for Retail—It provides the core infrastructure for the store. (This is the same package that is available at the enterprise, but it is sized for the store.)
- IBM WebSphere Systems Management Accelerators for Retail—This enables remote installation support and systems management.
- IBM Retail Store Solutions offerings and services—They support POS integration and the extension of existing POS functionality.

Overall, Store Integration Framework can help retailers protect their existing IT investments while adding new capabilities in the store to enable on demand operations and transform the shopping experience. Thin-client/browser-based devices can deliver new information and business capabilities to employees and consumers throughout their store environments—in real time. Mobile shopping cart assistants can help the customer in the shopping process. Handheld communication devices can empower employees with information to better service customers while they shop and to track progress on work items. Retailers can leverage leading-edge technologies, such as digital media and inventory-tracking solutions, that are enabled by RFID technology delivered in the IBM RFID Add-On for WebSphere Remote Server. And all of these processes can be managed from the enterprise, so store personnel won't be distracted by IT issues.

Technology underlying Store Integration Framework



Section A

Understanding IBM Store Integration Framework

Q3. On which IBM technology components is it built?

- A. Store Integration Framework is composed of numerous technologies and services—including enterprise-class, industry-leading software—that have been pre-integrated, packaged and configured for the retail environment. It includes the following components:

IBM WebSphere Remote Retail Server	
IBM WebSphere Application Server	Provides the foundation for a Java™ 2, Enterprise Edition (J2EE) technology-compliant, Web-based environment for the retail store. Gives you the ability to create and integrate browser-based applications and business components within the store for use on thin-client devices.
IBM WebSphere MQ advanced messaging services	Provides standard, assured-delivery messaging for all applications within the store. Helps facilitate real-time communication between applications and processes.
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. 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® management and monitoring software	Provides systems management capabilities for the store environment, including monitoring the status of most devices (for example, POS devices, kiosks and handheld tablets) to help retailers proactively manage hardware and software. Also enables store systems management from the enterprise level.

IBM WebSphere Systems Management Accelerators for Retail	
IBM WebSphere Systems Management Accelerators	Leverages Java Management Extensions (JMX) instrumentation, which enables you to provide remote installation support and centralized systems management for virtually any device or software solution in geographically dispersed stores. This helps you to accelerate the time-to-value of new applications and to consolidate IT management responsibilities at the enterprise to reduce costs.
IBM WebSphere Remote Management Agents	Monitors store infrastructures from a central location, providing you with a consolidated view of hardware and software status in individual stores at the enterprise. It also delivers updates remotely from the enterprise to stores, where the updates are then “fanned out” for installation on individual devices, such as kiosks and Web pads. This can help you offload IT responsibilities from store personnel and consolidate them at the head office—helping to accelerate time-to-value.

Section A

Understanding IBM Store Integration Framework

IBM Store Integration Framework Extensions	
IBM RFID Add-On for WebSphere	Provides a solution to filter and manage RFID information
IBM Digital Media Extension	Enables the integration of content management engines with display technologies
IBM Retail Data Extension	Supports transaction log (Tlog) handling for non-IBM 4690 applications to move POS data to headquarters
IBM POS Extension	<p>Gives other applications access to POS data and business logic through either of the following tools:</p> <ul style="list-style-type: none">• IBM Store Integrator - Delivers an open, Java technology-based API that enables you to reuse existing business logic via numerous heterogeneous devices and various IBM Business Partner and ISV applications• IBM Data Integration Facility - Unlocks access to information by providing transfer and translation tools to support open standards; data that's been translated into industry-standard formats can be integrated easily with existing store technology environments, facilitating real-time data exchange throughout the store

Q4. On which open, industry standards is it built?

A. Store Integration Framework is built on the following open, industry standards:

ARTS	Association for Retail Technology Standards
BPEL	Business Process Execution Language
FTP	File Transfer Protocol
GTIN	Global Trade Identification Number
HTML	Hypertext Markup Language
HTTP	Hypertext Transfer Protocol
IIOp	Internet Inter-ORB Protocol
IXRetail	International XML Retail Cooperative
J2EE	Java 2 Enterprise Edition
JDBC	Java Database Connectivity
JMS	Java Message Service
JMX	Java Management Extensions
JPOS	Java Point of Sale
JVM	Java Virtual Machine
ODBC	Open Database Connectivity
OSGi	Open Service Gateway Initiative
RSBC	Retail Standard Business Components (proposed standard)
SOAP	Simple Object Access Protocol
UCC	Uniform Commercial Codes
W3C	World Wide Web Consortium
WSDL	Web Service Description Language
XML	Extensible Markup Language

Section A

Understanding IBM Store Integration Framework

Q5. What can it enable my retail business to do that it can't do right now?

- A. Retailers today are experiencing more intense competition than ever. Never before has there been such a need to differentiate your retail business in the eyes of consumers. Store Integration Framework enables you to use open standards to rapidly integrate new technologies. It can help you get new solutions to market faster to differentiate your business and help save valuable time and money. It can give your business a competitive edge by delivering an environment that transforms the customer shopping experience, optimizes employee effectiveness and helps remove costs from your retail operations.

Section B: How Store Integration Framework works

Q1. How does it integrate with virtually any point-of-sale (POS) application?

- A. Store Integration Framework allows nearly all POS solutions to integrate with its Web application platform using a proposed standard Java advanced programming interface (API) and a Web services architecture. This platform allows standard access to POS data and business logic for use by other applications that need it. For example, a self-service photo-finishing kiosk may allow customers to complete and tender their photo processing transactions. Instead of having the photo kiosk vendor provide the transaction-processing function, the standard API would allow the kiosk vendor to create an instance of the POS application that can enter the photo processing items, tender the transaction and record the sale within the store's transaction log for consolidation.

Store Integration Framework also allows you to leverage Java technology to provide new capabilities to your legacy software applications, such as IBM Supermarket Application or IBM General Sales Application solutions. IBM, IBM Business Partners or your IT team can write new application functionality in the Java language for use at your POS terminals.

Q2. How does it connect with my existing point-of-sale, self-checkout and other self-service applications—and those I opt to implement in the future?

- A. Store Integration Framework enables new and existing applications to more readily share messaging, business logic and data. It provides virtual POS terminal sessions that provide access to POS functionality across many types of self-service devices and applications, including personal shopping assistants, self checkout solutions and kiosk systems.

Section B

How Store Integration Framework works

For example, mobile shopping cart assistants can run POS applications using business logic from your existing POS solutions. Shoppers could use an interface specifically designed for them, which is a simplified version of the POS interface found at checkout terminals. And functions such as signing on with a loyalty card, retrieving a shopping list, presenting personalized promotions, scanning items into a shopping cart and tendering or suspending transactions for completion at a traditional POS terminal or self checkout solution would be provided by your existing POS systems. This can help enable you to save money by consolidating POS capabilities into one system and avoiding the need to adapt existing applications when you require new POS functionality.

Q3. How can it facilitate integration across my retail enterprise?

- A. Using proven integration tools that IBM developed for the enterprise—which are now packaged and configured for the store environment—Store Integration Framework can connect applications and data across the enterprise. Working with IBM On Demand Workplace™ offerings and IBM WebSphere Business Integration tools, it helps simplify movement of information and reuse of business capabilities between the store and the enterprise. Delivers fully integrated multi-channel retail operations. Enables you to rapidly respond to business needs, deliver differentiating services to customers and evaluate new technologies and solutions quickly to transform your business.

Q4. What kinds of business applications can it connect?

- A. Store Integration Framework is designed to connect all types of in-store applications—both existing and new. Guided selling to help consumers in the shopping process. Personalized shopping solutions. Digital media. RFID-enabled inventory/improved inventory management. With IBM WebSphere Application Server technology, it uses browser-based solutions to integrate POS applications via a standard Java API and Web services. Today, it integrates with IBM General Sales Application, IBM Supermarket Application and IBM SurePOS™ ACE software. Integration with the IBM VisualStore offering is expected in the near future.

Q5. What kinds of in-store devices can it enable?

- A. Store Integration Framework is designed to integrate all types of devices within the store. These include POS terminals, kiosks, wireless tablet devices, handheld devices, electronic shelf-edge labels, RFID readers and portals, and voice communication tags. If a device can communicate using a standard browser interface device (e.g., Microsoft® Windows® CE, Linux® or Palm), a Web-enabled service or an API, it can be integrated with Store Integration Framework. IBM has worked with several device providers, such as Symbol, to provide a standard software bundle that ensures devices are optimally integrated and that IBM systems management tools can recognize and manage them effectively.

Q6. How many devices and applications can it integrate?

- A. The number of applications and devices integrated by Store Integration Framework is determined by the processor and memory requirements of the hardware running the applications. The WebSphere components of Store Integration Framework provide clustered server capabilities and an option for high availability and network deployment. These flexible configuration options allow applications to be deployed within the store or anywhere within the retail enterprise and then accessed from the store—making the number of connections and applications it can support virtually limitless.

Section C: Benefits of Store Integration Framework

Q1. What are the business benefits?

A. With Store Integration Framework, you can help transform and improve the consumer shopping experience, enhance employee productivity and reduce the impact of turnover. By integrating applications and devices with Store Integration Framework, you can help improve customer satisfaction, which may lead to increased sales and reduced costs. New store capabilities include:

- The ability to quickly deliver new solutions to differentiate your services to consumers.
- The ability to provide information to customers to increase basket size.
- Self-service technologies for consumers that allow them to control their own shopping experience.
- The ability to capture consumer and inventory information to improve store flow and merchandise mix, enabling you to deliver products needed by the customer demographic shopping in a specific store.
- Deployment of tools to help employees serve customers and get their work done faster.
- Implementation of new technologies, such as RFID technology-enabled solutions, to streamline merchandise delivery and inventory management processes within the store.
- The ability to automatically sense out-of-stock merchandise and products that are selling faster than anticipated.

Q2. What are the technical benefits?

- A. Store Integration Framework extends existing POS application capabilities, allowing reuse of POS business logic and integration of POS applications with other store and enterprise systems. It enables rapid design, deployment and management of new Web-based applications and pervasive devices. Technical features include:
- A platform for integration of disparate technologies based on industry standards.
 - Investment protection for retailers' existing in-store technologies and integration with newer technologies.
 - A standardized infrastructure that connects the store to the enterprise to deliver a consistent customer experience across all shopping venues.
 - Flexibility and choice in installing tools, operating systems and solutions throughout the enterprise.

Q3. Is it right for my retail business?

- A. Store Integration Framework is for retailers that want to transform their retail environment to better service customers, reduce employee turnover, improve sales associate productivity and remove costs from their operations. And it's for retailers that want to deliver a consistent level of service no matter what channel the customer uses. The technology IBM delivers with Store Integration Framework will help enable multichannel integration. And retailers can experience it now.

Section D: Implementing Store Integration Framework

Q1. How can I get started?

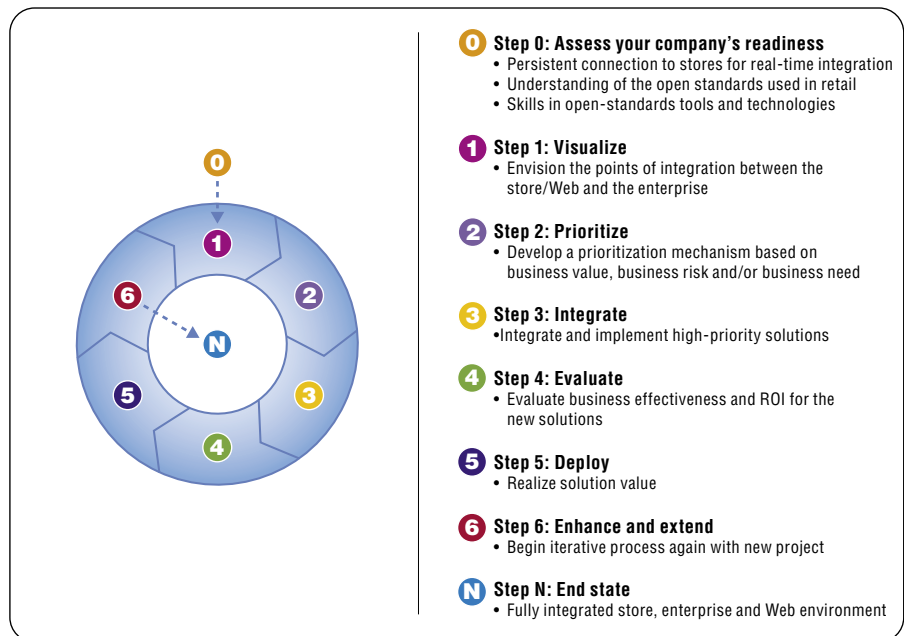
A. Assess your company's readiness by asking the following questions:

- Do its stores have a persistent connection for real-time integration?
- Does my IT team understand the open standards used in retail environments?
- Does my IT team have the necessary skills and knowledge in open-standards tools and technologies?

Q2. What are the steps in the implementation process?

A. Store Integration Framework provides a flexible migration path, tailored to your business needs and existing technology investments.

Implementation roadmap for IBM Store Integration Framework



Q3. How can I buy it?

- A. Store Integration Framework is available for purchase directly from IBM, through your IBM retail sales representative.

Q4. How long does it take to install?

- A. Today, installing the individual components of Store Integration Framework takes merely hours. And because it is already integrated and tested, installation is handled by scripts that allow remote installation using IBM Tivoli software. This provides a much faster installation process that does not require your intervention.

Q5. What are the maintenance requirements?

- A. When you purchase Store Integration Framework, you are entitled to maintenance releases for each component included in your solution bundle or purchased individually. Maintenance is delivered via a standard yearly agreement.

Q6. What is the timeline for future releases?

- A. IBM will continue to refine Store Integration Framework and deliver new components and extensions to existing components through new releases on an annual basis. The first release will enable easy, efficient integration, implementation and support through scripts that support remote installation using IBM Tivoli Enterprise™ Console® software. Future extended capabilities will include additional Tivoli software components to streamline systems management requirements for the store and new solutions that leverage Store Integration Framework.

Q7. How can I find out more?

- A. For additional information about IBM Store Integration Framework, please contact your local IBM sales representative or visit:

ibm.com/industries/retail/store



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IBM Retail Store Solutions
P.O. Box 12195, 3039 Cornwallis Road
Research Triangle Park, NC 27709
U.S.A.

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