

Store Integration Framework

IBM Store Integrator

Sales reference guide



Summary

Retailers are expanding their service offerings by integrating new touchpoints where consumers and employees can access information on demand. They're installing advanced point-of-sale (POS) applications to implement and improve capabilities such as dynamic scanning, inventory management and pricing, and tailoring these applications with specialized business logic – custom-developed code that enables specific store functions. As retailers extend information and capabilities to new end points throughout their stores, they must protect and leverage existing POS investments to optimize operational costs.

As a key component of the IBM Store Integration Framework – an open-standards-based, services-oriented architecture that provides an on demand retail operating environment for the store – IBM Store Integrator facilitates the integration of multiple store systems, and the addition of new customer- and employee-facing touchpoints. IBM Store Integrator delivers an open, Java™ platform-based application programming interface (API) that enables retailers to reuse existing business logic beyond the POS, via devices such as personal digital assistants (PDAs), handheld wireless tablets, kiosks and self-service scanners, as well as other front- and back-office applications. With the IBM Store Integrator solution, retailers can enhance the functionality of their existing IBM 4690 OS-based solutions through easier application development. And they can enhance the usability of their customized IBM 4690 software applications by generating simple-to-use, intuitive graphical user interfaces (GUIs).

Key messages

1. IBM Store Integrator provides flexibility by establishing a standardized application integration platform

IBM Store Integrator provides an application development interface that can be used with virtually any store technology platform, enabling retailers to leverage existing POS business logic to create new functionality via a standard approach. So they can use business logic from existing POS applications to build new subsystems for enhanced capabilities, such as layaway, self-service purchasing or returns management. And they can leverage this logic – including functions like scanning, retrieving pricing data and updating inventory – to plug in next-generation solutions in the future.

2. IBM Store Integrator helps enhance customer satisfaction by improving consistency across consumer touchpoints

IBM Store Integrator allows retailers to distribute POS functionality and information across customer points of service, such as self-checkout devices, kiosks, handheld sales tools and Web interfaces, to deliver a faster, more convenient shopping experience. They can pull business information – such as pricing, product movement, transaction and customer loyalty profile data – from POS systems and distribute it to applications storewide. Retailers can consistently differentiate the services they deliver to customers by offering capabilities such as self-checkout, gift registry, product comparison, in-store product location and electronic receipt, and self-service access to promotion, product and pricing information.

3. IBM Store Integrator helps increase employee productivity by providing convenient, intuitive access to tools and information

By using IBM Store Integrator, retailers can give store managers and sales associates access to useful tools and information that empower them to sell more merchandise and improve customer service. Managers can perform key functions, such as transaction authorizations and overrides, from anywhere within the store using handheld devices – so they can stay on the store floor and facilitate sales. Equipped with Web-enabled tablet devices, associates can access customer, pricing and product information rapidly, and use capabilities such as remote checkout, product ordering and coupon customization. IBM Store Integrator also helps improve system usability by enabling retailers to build intuitive GUIs using Java technology to enhance POS applications – without having to alter existing functions. And it enables retailers to distribute a remote version of their POS interface virtually anywhere throughout their stores without having to develop new business logic.

4. IBM Store Integrator helps simplify operations and lower costs by automating device management and reducing technology redundancy

IBM Store Integrator enables retailers to leverage existing POS tools, applications and functionality as reusable business logic, resulting in reduced expenses. Its systems management capabilities are built on an industry-standards-based Java technology foundation. So IBM Store Integrator can support dynamic remote management of store systems, as well as advanced monitoring features, from a central location. It also enables retailers to avoid the cost of purchasing and implementing new applications that perform the same functions as their existing POS solutions. And it helps retailers reduce their need for specialized technical expertise, as well as the cost of supporting redundant, heterogeneous systems – resulting in a lower total cost of operations.

Features and benefits

IBM Store Integrator comprises a set of features that work together to open the IBM 4690 OS platform to integrate with new store applications and devices. These features include:

IBM Store Integrator

Features	Benefits	The retail on demand connection
Application Extension Facility	Extends the functionality of existing POS business logic to deliver new portable, reusable capabilities in the store via a standardized Java technology-based approach	<p>Take out costs</p> <ul style="list-style-type: none"> Allows retailers to reuse and extend their POS business logic using Java 2 and Web services interfaces Facilitates extension to existing applications with a standard development environment <p>Empower employees</p> <ul style="list-style-type: none"> Gives employees access to POS business logic and data via multiple devices <p>Transform customer experience</p> <ul style="list-style-type: none"> Enhances consumer services by reusing POS business logic (for example, customer self-scanning via kiosks or Web tablets) Delivers a single, consistent view of the retailer to customers through multiple touchpoints
Enhanced Java GUI	Leverages Java technology to build intuitive GUIs for IBM 4690 OS-based POS applications	<p>Take out costs</p> <ul style="list-style-type: none"> Allows retailers to create an easy-to-use POS user interface without having to alter existing capabilities or functions <p>Empower employees</p> <ul style="list-style-type: none"> Reduces training time Provides an intuitive, easy-to-use, browser-based POS interface <p>Transform customer experience</p> <ul style="list-style-type: none"> Provides an intuitive, easy-to-use interface for consumer service
Client session server	Delivers virtual POS sessions that invoke 4690 OS application logic on a variety of devices within the store	<p>Take out costs</p> <ul style="list-style-type: none"> Extends existing business logic without having to alter applications <p>Empower employees</p> <ul style="list-style-type: none"> Delivers POS functionality to remote devices to help employees become instant experts <p>Transform customer experience</p> <ul style="list-style-type: none"> Enables new consumer services that require POS functionality, such as line-busting
Store Application Facility	<p>Helps retailers simplify the process of integrating browser-based applications within the store and enterprise</p> <ul style="list-style-type: none"> Delivers systems management based on Java Management Extension technology, providing monitoring and alerting capabilities Speeds time to deployment and simplifies development processes through the reuse of business objects 	<p>Take out costs</p> <ul style="list-style-type: none"> Speeds time to deployment and simplifies development processes through the reuse of business objects Supports remote management from a central location <p>Empower employees</p> <ul style="list-style-type: none"> Enables employees to better manage workflow, access information for improved customer service and even complete the sale process from anywhere in the store <p>Transform customer experience</p> <ul style="list-style-type: none"> Integrates applications such as those supporting personal shopping assistant, item locator and special order services Allows access to POS business logic to create virtual terminals and allow Web tablets or kiosks to behave as POS terminals Enables true multichannel capability

Positioning

Portfolio comparison

IBM Store Integrator is part of the IBM Store Integration Framework and can be purchased separately or as part of a comprehensive infrastructure solution. IBM Store Integration Framework combines the proven capabilities of IBM WebSphere® business integration software with IBM's expertise in POS solutions to create an IT infrastructure for on demand retail store operations. It is a store-focused Web services architecture that helps connect consumers and employees to critical information in realtime. Based on industry standards and a common systems management infrastructure, IBM Store Integration Framework enables retailers to extend POS applications and data throughout the store.

IBM Store Integrator also provides IBM Business Partners and independent software vendors (ISVs) with simple, efficient, cost-effective and reusable integration solutions for retail store environments. IBM Store Integrator enables them to integrate their solutions – kiosks, personal shopping devices, customer self-service, Web-channel enablement, returns management, fuel service, pharmacy, inventory management, shrink prevention and biometric payment – to complement POS operations. By using IBM Store Integrator, ISVs can integrate their solutions once using modern, intuitive Java APIs, and then market and sell them to the entire IBM 4690 OS install base. By integrating directly with IBM 4690 POS applications, these ISVs can reuse customized business logic and data from the POS – so they no longer have to maintain duplicate systems, such as pricing files and payment solutions.

Target markets

IBM Store Integrator is designed for retailers within the grocery, department store and mass merchant market segments that are interested in expanding their existing IBM 4690 OS solutions. It enhances the functionality of IBM 4690 OS-based solutions – including IBM General Sales Application, IBM Supermarket Application and IBM SurePOS™ ACE for 4690 – through easier application development. And helps improve application usability by enabling retailers to create simple-to-use GUIs for customized IBM 4690 OS solutions.

By enabling retailers that use the IBM 4690 OS to integrate new applications into their POS environment, IBM Business Partners and ISVs can introduce new services to any retailer within the existing 4690 OS install base. These services can include, but are not limited to:

- *Photo kiosks*
- *Personal shopping assistant devices*
- *Shop on the Web/pick up at the store*
- *Gift registry*
- *Pharmacy*
- *Fuel sales*

Specifications

Hardware requirements¹

Controller	Minimum 1GHz processor with 512MB of memory
Terminal	IBM SurePOS 4694 or IBM SurePOS 700 Series terminal with a minimum 300MHz processor and 96MB of free memory
Application server	Minimum 1GHz processor with 1GB of memory and two disk drives
Remote device	Minimum 500MHz processor with 256MB of memory

Software requirements

Controller and terminal	IBM 4690 OS Version 3 Release 3 CSD 04J0 ² One of the following applications: <ul style="list-style-type: none">• IBM 4680 - 4690 Supermarket Application N001 E-Fix 4171 (IR52980)³• IBM General Sales Application M001 E-Fix 4169 (IR52863, IR53131, IR53329), or later• IBM SurePOS ACE for 4690 OS Version 3• MX4J Version 2.0.1⁴
Application server	Optional systems management components: <ul style="list-style-type: none">• IBM WebSphere Application Server Version 5.0.2• SUSE LINUX Enterprise Server 8 SP3• MX4J Version 2.0.1⁴
Remote device	JavaPOS Version 1.7.1 IBM Java Run Time Environment (JRE) Version 1.4.1 One of the following operating systems: <ul style="list-style-type: none">• Microsoft® Windows® XP Professional SP2• Microsoft Windows 2000 SP3• MX4J Version 2.0.1⁴



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¹ The minimum requirements listed in this section represent the minimum supported configurations for use with IBM Store Integrator Application Extension Facility extensions. The actual hardware is highly dependent on the size of the base application and the extension code itself. Therefore, the minimum supported hardware may not be sufficient for some applications. When selecting new hardware or upgrading existing hardware for use with IBM Store Integrator, 512MB or more of memory with at least 1GHz processor is recommended for terminals, and 512MB or more memory with at least 2.4GHz processor is recommended for controllers, to allow for future growth in functionality.

² The IBM Store Integrator GUI feature also requires the IBM ICEsoft AS browser for the 4690 Version 5.4 OS and a minimum 500MHz processor with 192MB of memory for a single video display. Dual video displays require a minimum 850MHz processor with 192MB of memory.

³ These Supermarket Application features have the following additional requirements:

• Electronic Marketing	Level M001	E-Fix 4173 (IR52981)
• Value Pack 2001	Level L001	E-Fix 4174 (IR52982)
• IBM SureMark™ 4610	Level N001	E-Fix 4181 (IR53049)
• Printer support		
• Enhanced Electronic	Level J001	E-Fix 4172 (IR53054)
• Funds Transfer		
• Value Pack	Base	E-Fix 4185 (IR53093)

⁴ JMX module available at <http://mx4j.sourceforge.net>