IBM Retail Store Solutions

IBM

Operating Systems/Middleware
IBM Retail Environment for SUSE LINUX
Version 2

Sales reference guide

Summary

The IBM Retail Environment for SUSE LINUX (IRES) is a fully integrated Linux™ platform optimized for agile, on demand retail environments. With IRES Version 2, on demand retailers can acquire the advantages of Linux, run Linux at the point of sale (POS) and on back-office servers, enjoy robust functionality drawn from the proven IBM 4690 Operating System (OS), and receive outstanding technical support from IBM. Like the original, IRES Version 2 includes a distribution of SUSE LINUX Retail Solution (SLRS) from Novell, Inc. It is based on the SUSE LINUX Enterprise Server (SLES) and distributed and licensed directly to our customers by Novell, Inc. This enterprise-class operating system is optimized to work with select IBM SurePOS™ systems, IBM @server™ xSeries™ hardware and IBM middleware. IRES Version 2 continues to include best-of-breed, cost-effective, retail-friendly support and maintenance. And it offers outstanding network security because Linux is typically less prone to security problems than Microsoft® Windows®, and is partitioned to limit the scope of any security breach.

Key messages

1. IRES helps retailers reduce total cost of ownership

IRES helps retailers reduce total cost of ownership (TCO) several ways. First, the SLES operating system scales to virtually any size retail environment and can run at the POS, on back-office servers or on a mainframe. This scalability helps retailers avoid costs associated with managing multiple operating systems, either in a single store or across the enterprise. Second, IRES allows retailers to use select POS terminals as both servers and clients, reducing the need to buy additional hardware. Next, it includes scalable systems management tools designed to minimize the need for intervention by store employees. And finally, unlike some platforms, IRES supports thin-client diskless environments (which help improve uptime and speed recovery from downtime) without the need to purchase additional software. In fact, Linux provider Cybersource recently updated its TCO comparison of Linux and Microsoft, finding that for a company with 250 users, Linux solutions will cost between 27% and 36% less than Microsoft's products over a three-year period. The study, entitled "Linux vs. Windows TCO Comparison: The Final Numbers Are In," is available online from Cybersource (www.cybersource.com.au).

2. IBM provides comprehensive, single-source support for IRES

The end-to-end support and maintenance component of IRES helps provide the reliability and continuity of service retailers demand, at a level typically unavailable with consumer-grade Linux distributions. The enhanced problem determination bundle available in Version 2 (see below) helps speed resolution of store downtime situations. In addition, IRES maintenance helps ensure retailers receive release updates and full support for future versions. IRES also offers a single, convenient and highly available point of contact for support, including systems integration. This is an important differentiator when compared to the support retailers would normally expect to receive from the open source community.

3. IRES offers enhanced retail functionality based on the IBM 4690 OS

Because of our success with the IBM 4690 OS (please see *Operating Systems/Middleware: IBM 4690 Operating System Version 4* for more details), IBM is uniquely positioned to offer solutions conditioned for high performance in retail. To this end, IRES Version 2 includes a feature set based on popular capabilities of the IBM 4690 OS. For example, new systems management components make it easier to keep track of in-store hardware and software inventory, so retailers can validate software updates and manage hardware upgrades more effectively. Also, a new graphical user interface (GUI) streamlines the reporting process for easier network diagnostics. IRES also supports Ready for IBM Retail Store Innovations[1] solutions (please see *Business Partner Services: Ready for Retail Store Innovations* for more details) pretested for use with select IBM POS systems.

Ready for
IBM **Retail Store Innovations**
point-of-sale solutions

Plus, IRES is configured to help retailers smoothly implement the innovative IBM Store Integration Framework – a unified integration environment that helps speed rollout of new hardware and software and helps retailers manage store and customer data in realtime (please see *Store Integration Framework: IBM Store Integration Framework* for more details).

4. IRES enables fast, easy configuration

IRES Version 2 will use dynamic role-based configuration, which helps simplify network administration. Instead of configuring each client individually, retailers simply select a default configuration based on the system's role in the store (e.g. POS, help desk, service, gift registry, or many others). In some cases, adding a new POS system to the store may not require any configuration at all. IRES also facilitates turnkey installation of in-store servers, so retailers can get a new server up and running in a Linux environment with less intervention and fewer manual steps.

IBM Retail Environment for SUSE LINUX

Features	Benefits	The On Demand connection
Server/client hardware support	Allows retailers to use a single POS system as both a server and client, enabling retailers with very few POS systems to take advantage of IRES without necessarily needing to purchase a separate Linux server	Operate on demand
During software updates to clients and servers, software sent from the enterprise level to the store level may only include new segments instead of the entire image	• Reduces strain on store bandwidth and speeds up the maintenance process (especially in large operations) • Allows you to return automatically to a previous image if updates are not completed correctly	Empower teams Operate on demand
SLRS9 currency (based on SLES9, using the 2.6 kernel of Linux)	• Includes Quad Byte support for Chinese code pages • Ensures the Linux distribution will easily accommodate new middleware and software offerings that are SLES9 certified	Operate on demand
PXE bootstrap	Helps enable fast loading of thin clients, automatic updating of client BIOS, and improved messaging during the boot process	Empower teams Operate on demand
Problem determination bundle	• Collects and bundles all of the operating system logs required for a fast recovery in the event of downtime • Produces the bundled diagnostic information in a consistent, industry-standard format, which helps IBM service teams resolve problems more rapidly	Empower teams Operate on demand
Dump push button (applicable to IBM POS hardware)	Allows users to dump the memory of any POS client for remote collection in the back office, which helps ensure fast diagnostics and resolution in the event of a system crash	Operate on demand
User-friendly GUI replaces the traditional command line interface for Setup Cash Register (SCR), the mechanism used to build client images	Users can easily choose from a list of features and the SCR configuration tool automatically selects the correct base image, easing the burden on technical resources and reducing the risk of configuration errors	Empower teams Operate on demand
Built on industry-standard Linux distribution	Helps reduce TCO	Operate on demand
Linux-based system management, with remote boot for diskless POS terminals	Helps reduce systems management costs	Operate on demand
High-availability configuration option with dual servers	Improves uptime	Operate on demand
Open-source model with multivendor flexibility for sourcing support, maintenance and services	Maximizes choices for service and support	Operate on demand
Worldwide IBM support model for SUSE LINUX and IBM software	Provides a single point of contact for service	Empower teams Operate on demand
Purpose-optimized operating system designed to meet the needs of a transaction-based retail environment, with high availability, reliability and data integrity built-in	Helps improve uptime in demanding retail environments	Operate on demand
Four base POS images scale to provide a broad range of functionality for POS application solutions, with build tools for customization of Linux images provided	Makes it easier for retailers to create custom images and support a wide range of POS and point-of-service applications storewide	Revolutionize the store Operate on demand
Supports applications from IBM Business Partners and independent software vendors (ISVs) through the Ready for IBM Retail Store Innovations program	Maximizes application choices storewide and across the enterprise	Revolutionize the store

IBM Retail Environment for SUSE LINUX (continued)

Features	Benefits	The On Demand connection
Supports select IBM POS hardware and xSeries (1 to 2 CPUs) servers	Provides investment protection for IBM POS hardware, and allows for testing and certification to ensure high availability and reliability	Operate on demand
Built-in reliability • Platform designed for remote installation and administration • Retailers not required to have skilled IT resources in the store • SLRS is built on the same code base as SLES and Novell Linux Desktop Distribution	Addresses a wider range of retail customers (including those with little or limited in-house IT support) while helping to ensure high operational reliability and error-free performance	Operate on demand

Positioning

Portfolio comparison

Linux is at the center of IBM's vision for the retail on demand world – where retailers remain competitive and responsive in an ever-changing business environment – and IRES is the focus of our Linux strategy. It is currently the only Linux offering in our portfolio. By forging a development partnership with Novell, Inc. to offer IRES, IBM creates a turnkey solution to help retailers take advantage of Linux, regardless of in-house IT capabilities. In addition, IBM has Linux-enabled IBM @server hardware, IBM middleware and select POS hardware, and the IBM Global Services team consistently leverages Linux to provide customers with mission-critical services. Taking advantage of IRES enables retailers to tap into this comprehensive retail industry and operating systems knowledge. Plus, with our proven track record through 30 years of global experience in retail, customers can be confident in our ability to bring our skills and experience to their Linux environment.

To find a more detailed comparison of IRES to other operating system choices, please see *Operating Systems/ Middleware: Microsoft Windows and Linux, page 5*.

Target markets

Retailers in any segment who value the reliability, flexibility and low TCO associated with the open source model

For these retailers, IRES is the right choice because it combines the advantages of Linux – such as enhanced security and flexibility – with the total solution strength of IBM Retail Store Solutions, IBM Software Group (for help with middleware) and IBM Global Services (for consulting and technical services). Together, these three groups offer exceptional Linux experience and expertise, and help maximize knowledge sharing in complex customer engagements.

Specifications

Hardware supported

Servers	• Select IBM @server xSeries servers (with 1-2 processors) certified for SUSE LINUX Enterprise Server 9 (SLES x86)
CPU	• Minimum: Intel® Pentium® 300MHz
POS client	• Select IBM POS systems, including: IBM SurePOS 700 Series, IBM SurePOS 500 Series, IBM SurePOS 300 Series, IBM SurePOS 4694 POS system[2] and IBM Kiosk[3]
Memory	• Minimum: 64MB (dependent on application)

Software supported

SUSE LINUX Retail Solution	• Industry standard Linux distribution (SLRS), which is distributed and licensed to the retailer by Novell • Server images modeled on SUSE LINUX Enterprise Server 9 (SLES9) • Client images modeled on Novell Linux Desktop 9 (NLD)
Java support	• IBM JDK 1.4.2
Drivers supported	• JavaPOS™ 1.7.4 and POSS/LIN 3.1.0[4]
Management tools	• SLES system management utilities including centralized POS client management with offering's enterprise administrative server
Language support	• Multiple language support provided with SLRS distribution
Middleware support	• Select IBM middleware supported on SUSE's SLES-based offerings
Applications supported	• Multiple IBM Business Partner software solutions[5]

Additional features

• Four optimized POS client installations • Carrier grade high availability • Remote boot capability for Linux-based diskless POS clients • Remote maintenance for standalone POS solution environment	• Dual display • Support for USB devices

Support and maintenance

Software maintenance	• One year (renewed annually)
Support life	• Up to five years (for specific release)
Technical support[6]	• 24x7 phone support
Open source code	• GPL license source code provided by Novell with SUSE LINUX platform

For more information

For more details about the IRES, the development partnership with Novell, Inc., or the role of general-purpose operating systems such as Linux in the IBM Retail Store Solutions portfolio, please contact Mary Beth Morrison at 1 919 301-5270 (tie line 352) or mbmccall@us.ibm.com.

[1] The Ready for IBM Retail Store Innovations mark and the trademark contained therein are trademarks of the IBM Corporation and are used under license only to indicate compatibility with IBM Retail Store Innovations point-of-sale solutions. IBM makes no warranties, expressed or implied regarding Ready for IBM Retail Store Innovations products and services, including any implied warranties of merchantability or fitness of a particular purpose. Statements made by IBM Business Partners that offer Ready for IBM Retail Store Innovations products are provided by the relevant third-party and not IBM.

[2] Please refer to **ibm.com**/industries/retail/store for reference to select model-types supported.

[3] Select integrated peripherals/devices are supported on the IBM Kiosk.

[4] Future releases available as market demands.

[5] Will vary based on geography. Please contact your local IBM representative.

[6] Technology support is geography dependent. Response times will vary.