IBM Lauches RFID Software

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IBM today introduced new WebSphere software designed to extend computing to the edge of business, offering remote locations such as a retail stores, distribution centers, or manufacturing sites the same computing capabilities for local applications and business processes that are available to the enterprise headquarters.

Addressing demand from customers for innovative technology that delivers on-demand asset management, as well as more efficient supply chain management, the software will help extend the return on information technology investment.

With today's announcement, IBM is introducing new WebSphere offerings designed to help enterprises automate business processes using Radio Frequency Identification (RFID) technology as well as middleware for retail store operations aimed at improving the customer shopping experience, employee productivity and supply chain efficiency. The new software enables the new class of sensor-based devices at the edge of network such as RFID readers and controllers, kiosks and self-checkouts to be integrated with enterprise business processes.

RFID

Radio frequency identification, or RFID, is a generic term for technologies that use radio waves to automatically identify people or objects. An RFID system consists of a tag, which is made up of a microchip with an antenna, and an interrogator or reader with an antenna. The antenna enables the chip to transmit the identification information to a reader. A passive RFID tag draws power from field

created by the reader and uses it to power the microchip's circuits. The chip then modulates the waves that the tag sends back to the reader and the reader converts the new waves into digital data.

IBM WebSphere RFID Premises Server is the first software offering from IBM's new Sensor and Actuator Solutions business unit. It is aimed at extending the edge of the IT infrastructure to integrate the physical world of RFID tags and networked RFID readers with customers' IT systems. Additionally, IBM is introducing IBM WebSphere RFID Device Infrastructure for RFID device manufacturers who need an embedded standards-based software platform to integrate RFID data collection and reporting at the edge of the network.

IBM WebSphere Remote Server is infrastructure for a variety of remote environments, such as retail store locations. The offering is designed to enable businesses to quickly and efficiently "snap-in" new applications and devices such as self-checkouts, mobile shopping devices, and smart shopping carts to enhance the customer shopping experience. Such devices are compatible with increasingly popular technologies such as digital media displays and consumer wireless devices.

For example, retailers can link new or existing in-store systems, such as RFID-enabled applications using IBM RFID Add-On for WebSphere Remote Server, point-of-sales (POS) systems, or IBM Business Partner solutions, with each other and the enterprise.In addition, WebSphere Remote Server is designed to be remotely deployed and managed. This provides the ability to obtain a consolidated view of hardware and software status in individual remote locations, such as stores, from a centralized IT center, and eases the burden on local offices, which often don't have an IT staff.

IBM WebSphere Remote Server is a core component of IBM's Store Integration Framework, a Web services architecture and store

infrastructure that provides a standards-based platform for integrating POS and Web applications throughout the store environment.

METRO Group, the world's fourth largest retailer, is the first in the retail industry worldwide to roll out RFID throughout its supply chain using an RFID middleware solution based on the IBM WebSphere RFID Premises Server. The retailer is using the solution to provide a virtual view of RFID-tagged pallets and cases shipped to its distribution centers. METRO Group has integrated 20 suppliers' processes into their own supply chain. Another 80 suppliers are scheduled to follow next year. METRO Group is automating its goods receiving process, with the aim of eliminating stock counting errors and improving customer satisfaction by avoiding "out of stock" and product expiration situations.

"Standards-based industry solutions based on IBM WebSphere software offer enterprises the opportunity to keep inventory at optimal levels to improve customer service, boost sales, and thereby extend ROI," said Robert Mayberry, vice president, IBM Sensor and Actuator Solutions. "RFID is the start of a new age of wireless sensors and actuators that will be as influential in information technology in the 21st century as the Internet was to e-business at the end of the last century."

IBM Software Offers On Demand View of the Supply Chain
RFID technology enables enterprises to track assets and view information in supply chains from data transmitted via radio waves from antennas on chips affixed to pallets and cartons of packaged food, pharmaceuticals or equipment. As tagged goods leaving factories or distribution centers are identified by RFID readers, data is collected wirelessly and shared with computer systems.

IBM WebSphere RFID Premises Server is capable of interpreting and correlating high volumes of data from RFID devices connected to the server to gain instant visibility of RFID tagged pallets and products.

Information from that location can be integrated with the enterprise and shared with the worldwide supply chain to deliver business insight within the enterprise and to partners and customers.

Using IBM WebSphere Remote Server and retail-focused applications from independent software vendors, retailers can optimize the store environment, promoting productivity. For instance, viewing sales data in real time will allow retail managers to evaluate instantly how products are selling. The retailer could then respond immediately by pushing an on-the-fly advertising message highlighting the product to digital media displays to drive new purchases, and then updating the price files in the POS systems. A real-time view of sales data can also help retail managers keep shelves stocked, promoting higher customer satisfaction and increased sales.

Both the Premises Server and the Remote Server include WebSphere Application Server, DB2 Universal Database software, WebSphere MQ Series, and Tivoli Systems Management middleware. Both offerings integrate with WebSphere Business Integration products, WebSphere Portal and WebSphere Product Center to help customers access applications made available by IBM Business Partners.

The solutions offer a J2EE and J2ME-based application environment that is flexible enough to integrate information with custom third-party business process applications. Clients can use Eclipse-based tools supported by industry standards to customize business processes. Applications can be deployed at local facilities, whether it be a factory, distribution center or retail establishment, and integrated with back-end operating environments and line of business IT applications.

Leading Device-Makers Base RFID Controllers and Readers on IBM Embedded Software

As part of today's news, IBM also announced it will offer WebSphere

RFID Device Infrastructure, based on Workplace Client Technology Micro Edition (WCTME) to device manufacturers. IBM WebSphere Device Infrastructure is embedded software that supports EPCglobal standards and can enable RFID device manufacturers to implement RFID data filtering at the point of wireless data detection. It also can be integrated with other physical devices such as indicator lights, motion sensors and industrial automation equipment, establishing a reliable platform for integrating data with the IBM WebSphere RFID Premises Server.

IBM WebSphere Device Infrastructure supports RFID readers from Alien, Intermec Technologies Corp., SAMSys and Symbol. Additional devices can be integrated to complete RFID-enabled process. Arcom will now be delivering its new RFID Edge Controller based on the IBM WebSphere Device Infrastructure. Intermec Technologies Corp. also has integrated IBM WCTME embedded software, into its new IF-5 Intelligent RFID reader.

The IBM WebSphere Device Infrastructure can enable these partners to provide a Java-based WebSphere embedded software platform supporting an OSGi architecture to implement embedded applications, RFID data filtering, and aggregation in the devices.

Builds on Sensor and Actuator Solution Initiative
IBM recently announced it would make a 250 million dollar investment over the next five years in Sensor and Actuator Solutions. The investment includes some 1,000 employees working across the company's software, services and hardware divisions, the opening of new RFID Labs worldwide, and leveraging its relationships with chip makers, reader makers and ISV's joining the company's effort to build an open standards-based wireless ecosystem.

IBM WebSphere RFID Premises Server and IBM WebSphere Remote

Server are priced per processor. IBM recommends a two-processor configuration for RFID implementations. Clients who have purchased IBM WebSphere Remote Server and want to add RFID capability can purchase the RFID Add-On for IBM WebSphere Remote Server to extend their existing Remote Server capability. The WebSphere RFID Device Infrastructure embedded software is licensed to RFID device manufacturers and priced based upon the number of devices to be enabled. The products are currently generally available.

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