

Streamline integration and processes, accelerate speed to market, and reduce total costs.



**WebSphere** software

## IBM WebSphere Business Integration for Telecommunications

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### Highlights

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- ***Provides sophisticated business support systems (BSS) and operations support systems (OSS) integration capabilities that reduce total cost of operations by streamlining business integration and processes***
- ***Allows rapid provisioning of new services and accelerates their time to market***
- ***Allows fast integration of best-of-breed or legacy applications, automates individual process steps and streamlines processes for competitive advantage***
- ***Enables the offering of a single Web channel interface for all users, no matter how they access it***

Telecommunications service providers (SPs) today face multiple challenges, including competitive pressures due to deregulation and building new networks to address changing customer needs. Competition has significantly increased and traditional revenue-generating services such as local and long distance have been reduced to commodities. The result is diminished margins and decreasing average revenue-per-customer (ARPU) along with increased customer churn.

To succeed ... even to survive ... in this difficult business environment, SPs need to integrate their business support systems (BSS) and operations support systems (OSS) to grow and run their businesses more profitably. For maximum efficiency and speed, core business processes should connect seamlessly across functions, such as customer portal, commerce, customer relationship management (CRM), enterprise resource planning (ERP), billing and

so on. Most importantly, they must integrate processes and information to enable integrated customer care and billing.

### **Integration for a unified view of data and processes**

To attract and retain their most profitable customers, most SPs improve the quality of their services. To manage BSS and OSS complexity, SPs need a unified view of corporate data and processes, which they can achieve by integrating their best-of-breed and legacy applications. To do business within their own enterprise and with other partners, SPs must integrate, develop and support systems and business processes that conform to industry standards like the TeleManagement Forum's eTOM (enhanced Telecom Operations Map).

### **Flexible, cost-effective integration**

The IBM WebSphere® Business Integration for Telecommunications offering provides great flexibility while helping to reduce costs and time to market.

WebSphere Business Integration for Telecommunications can help SPs to:

- *Provide sophisticated BSS and OSS integration capabilities that reduce operation expenses by streamlining and integrating business processes*
- *Provision new services rapidly and accelerate their time to market*
- *Integrate best-of-breed and legacy applications quickly, automate individual process steps and streamline processes for competitive advantage*
- *Enable a single Web-channel interface for all users, regardless of the access method*

IBM has the technical expertise and is familiar with business issues and key business processes in the telecommunications industry. IBM integration products are designed to work with industry-specific applications, data standards and business processes. This can translate into faster, easier and dramatically more-efficient results from integration projects.

### **Software packages geared to telecommunications**

IBM offers several packages created specifically for the telecommunications industry, all of which are compliant with the IBM Service Provider Delivery Environment (SPDE) Integration Hub reference architecture. These packages help SPs to address specific BSS and OSS busi-

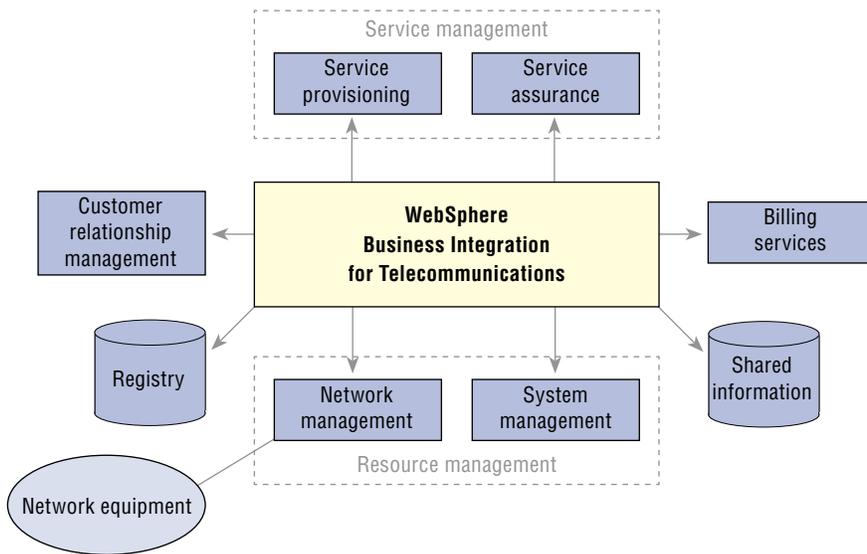
ness challenges and can help create a truly next-generation service-delivery environment. The packaged offerings include:

- **DSL Broadband provisioning**  
*This enables an SP to automate the provisioning of new digital subscriber line (DSL) services without requiring a customer support representative or network engineer to intervene in the order. The automated process can prequalify the local loop, ensure that the customer site is within distance limitations from the central office (CO), set up billing information, perform a customer credit check and perform various other functions.*
- **Wireless provisioning**  
*This offering allows wireless devices and services to be provisioned and activated quickly. This automated process handles the logistics of assigning phone numbers, establishing billing information and activating service across the various cells and cell networks. In addition, wireless provisioning process integration can address suspension of service due to a stolen phone or code, late payments and service processes.*
- **IDC provisioning**  
*This automated process enables the establishment of new Internet services and applications such as Virtual Private Networks (VPNs) or new hosting servers.*
- **Integrated Customer Care & Billing**  
*This process automation addresses an*

*extremely important bundling of services (for example, long distance, DSL and wireless). Allowing seamless information sharing between these multiple functions can result in increased ARPU and reduced customer churn.*

The WebSphere Business Integration for Telecommunications offering leverages, and is compatible with, the IBM middleware portfolio, including IBM WebSphere MQ, IBM WebSphere MQ Workflow and IBM CrossWorlds® InterChange Server (ICS). This comprehensive approach allows for message transformation, message routing and message delivery. It coordinates workflows for closed-loop and secure business processes. The WebSphere Business Integration for Telecommunications offering also provides back-end and legacy integration for true business process management without having to write changes to existing data and application environments.

IBM also offers a full spectrum of hardware, software, services and consulting for the telecommunications industry in conjunction with IBM WebSphere Business Integration for Telecommunications. Working with leading IBM Business Partners—such as Siebel and Portal Software—IBM can deliver applications and solutions tailored to meet specific business needs.



The unique WebSphere "hub-and-spoke" design helps solve many BSS and OSS problems.

## IBM WebSphere MQ

IBM WebSphere MQ messaging software is at the heart of WebSphere Business Integration for Telecommunications. This messaging software:

- *Connects multiple back-end systems — and more than 35 platforms — in real time. MQ assures delivery and eliminates duplicate messaging, thus helping you make better business decisions.*
- *Automates message delivery by transforming messages from different formats and routing them to different systems — eliminating the need to write special code. You can direct information where and when it's needed.*
- *Models and automates complex processes that involve people, computer systems and workflows.*

Descriptions follow of the products that are bundled and sold as part of the IBM WebSphere Business Integration for Telecommunications offering.

### IBM WebSphere Business Integration Version 4.1

IBM WebSphere Business Integration is a comprehensive integration offering that allows customers to quickly and cost-effectively implement both process integration and application connectivity. It uses secure and scalable technology that accelerates e-business initiatives for customers, suppliers, partners and employees.

The results ... and the scope of the product's uses for telecommunications ... were described in the previous sections. Making WebSphere Business Integration Version 4.1 more

robust and specifically geared to telecommunications requires some of the following middleware products:

- *IBM WebSphere MQ Workflow*
- *IBM WebSphere MQ Integrator® Broker*
- *IBM CrossWorlds InterChange Server (required)*
- *IBM CrossWorlds Full Toolset (required)*
- *IBM CrossWorlds connector for MQSeries*
- *IBM CrossWorlds connector for WebSphere MQ Workflow*
- *IBM CrossWorlds connector for MQSIV2 (MQSeries Integrator Version 2)*
- *IBM CrossWorlds XML Data Handler*

Descriptions of the most commonly used of these products follow. For more details on pricing and technical information for IBM WebSphere Business Integration Version 4.1, refer to the Sales and Marketing Information kit at [ibm.com/websphere/integration/telecom](http://ibm.com/websphere/integration/telecom)

### IBM WebSphere MQ Workflow

IBM WebSphere MQ Workflow aligns and integrates an organization's resources and capabilities with its business and e-business strategies. It accelerates business process management and enhances business agility, service-level management and the reuse of business services. Implementing e-business process automation with WebSphere MQ Workflow helps companies to boost quality and productivity and react more quickly to market opportunities.

This product helps in tackling the human interaction side of business.

### **IBM WebSphere MQ Integrator Broker**

The WebSphere MQ Integrator Broker transforms, augments and applies rules to message-based data, and routes and distributes it between high performance systems. It integrates both existing and new applications with business data, using dynamic content and topic-based publish and subscribe functions. It also visualizes the application flow through a graphical development environment. With the WebSphere MQ Integrator Broker, users can define message formats through a variety of dictionaries, either those supplied with the product or from a third party.

WebSphere MQ Integrator Broker simplifies support for multiple environments with a variety of application adapters, templates and tools, providing a fully scalable architecture to meet growing business needs. Its open framework allows the use of built-in components together with third-party offerings.

### **IBM CrossWorlds InterChange Server (ICS)**

The IBM CrossWorlds InterChange Server (ICS) is the foundation of the WebSphere Business Integration for Telecommunications offering. It is a scalable, reliable and secure environment for business integration

with all the “nuts and bolts” functionality for business process automation.

What this means for you is mission-critical reliability and availability, enterprise-level scalability and performance, and centralized system and configuration management.

Benefits of the ICS include:

- *One centralized and common view of enterprise-wide data and processes*
- *A comprehensive set of technical services including:*
  - *System management*
  - *Event management*
  - *Repository services*
  - *Error handling*
  - *Transaction management*
  - *Data transformation and messaging*

### **IBM CrossWorlds Collaborations**

Right at the core of business process integration are prebuilt, industry-specific solutions for business process automation. Application-independent Collaborations (or integration modules) define end-to-end processes graphically and encapsulate basic integration and business rules for common business processes. All IBM CrossWorlds Collaborations use the Common Object Model, a superset of data models used by widely deployed packaged applications,

thereby helping reduce initial and ongoing maintenance costs. Collaborations that comply with the TeleManagement Forum eTOM standard, and are currently available, include:

#### **• IBM CrossWorlds Collaboration for Product Development and Retirement**

*This manages the creation of services, allowing the quick introduction (or retirement) of telecommunications services. This means that new services or changes in service levels can be introduced rapidly.*

#### **• IBM CrossWorlds Collaboration for Customer Order Handling**

*This manages customer information and order information, which streamlines telecommunications order-handling activities. Customer care can then use the managed information to process the order and authenticate and set up the requested service, thus minimizing the time and effort to perform the order handling.*

#### **• IBM CrossWorlds Collaboration for Customer Service Configuration and Activation**

*This manages the configuration details for activating a telecommunications service. Based on the service order, the Collaboration enables the setup and activation of various services (DSL, wireless, and so on) and processes the order after testing the delivery of the service.*

- **IBM CrossWorlds Collaboration for Resource Provisioning and Allocation**

*This manages the setup of work orders for telecommunications fieldwork and service installation. This Collaboration enables firms to streamline the process, reducing lag time between the steps of taking a service order and setting up fieldwork.*

- **IBM CrossWorlds Collaboration for Customer Billing Management**

*This manages telecommunications customer billing accounts. When someone reports a billing problem, this Collaboration allows the company to manage the billing accounts in question and resolve the problem. When a service is provisioned, this Collaboration allows the telecommunications firms to activate the billing account for the billing cycle.*

- **IBM CrossWorlds Collaboration for Customer Problem Handling**

*This manages all problem resolution, including problems with telecommunications orders, service and billing. Companies can track resolution or progress in solving customer problems, frequently resulting in greater customer satisfaction.*

### **IBM CrossWorlds Connectors**

Connectors, or adapters, are available to help the CrossWorlds ICS integrate with the most common industry-leading applications. These Connectors to key network protocols open service creation to third-party developers and can enable multiple new services to draw customers.

IBM WebSphere Business Integration

for Telecommunications connectivity options help pull information from industry-leading independent software vendor (ISV) applications and legacy applications, databases, trading partners' systems and even from public information stores on the Web. Connectors allow companies to exchange information and integrate processes, and they support:

- *Event-driven, real-time synchronous connections*
- *Asynchronous, loosely coupled trading partner connections*
- *Synchronous on-demand customer connections*
- *Synchronous tightly coupled trading partner connections*
- *The remote invocation mechanism (access interface), based on Synchronous Common Object Request Broker Architecture (CORBA), allowing you to connect audiences to your systems and applications through browser-based interactions*
- *Sophisticated business-object integration and management capabilities to unite and extend business processes and IT resources inside and outside the company.*

WebSphere Business Integration for Telecommunications currently offers connectivity to major applications providers such as:

- *Ariba*
- *Clarify (Amdocs)*
- *i2*

- *Metasolv*
- *PeopleSoft*
- *Portal Software (Infranet)*
- *SAP*
- *Siebel*
- *Vantive (PeopleSoft)*

Additionally, IBM Global Services has been actively engaged around the world providing integration services and developing Connectors for a wide range of industry applications including those from:

- *Amdocs*
- *Cisco*
- *Convergys*
- *Hekimian*
- *MDSI*
- *Micromuse*
- *Nightfire*
- *Sodalía*
- *Syndesis*
- *Telcordia*
- *Tivoli® Software Distribution*
- *TTI*
- *Zvolve*

### **Supported operating systems**

WebSphere Business Integration for Telecommunications supports the following operating systems:

- *Microsoft® Windows®*
- *IBM AIX®*
- *Sun Solaris*

## **A winning combination for your company**

Integrating your BSS and OSS systems with IBM can help you reduce operational costs, improve existing services and accelerate time to market for new services while helping you retain and acquire new customers. Connected systems, departments and processes help boost your operational efficiency. It's easy to see the impact to your bottom line when your application delivery platform supports business processes and services—for example, provisioning and billing for new DSL services. IBM integration architecture is business-driven and based on open standards.

WebSphere Business Integration for Telecommunications features the outstanding technology of the MQSeries and IBM CrossWorlds middleware. The IBM CrossWorlds technology's patented Common Object Model, industry templates and extensive connectivity enable faster and easier integration while reducing implementation and maintenance costs. It's a winning combination for you and your bottom line.

## **For more information**

To learn more about IBM business integration solutions for the telecommunications industry, call your IBM customer service representative, or visit:

**ibm.com**/websphere/integration/telecom



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Route 100  
Somers, NY 10589  
U.S.A.

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