







In an increasingly competitive marketplace with customer churn rates that can range from 20 to 30 percent<sup>\*</sup>, you search for ways to succeed. Whether you want to accelerate your service provisioning process, or quickly deploy a new service, you need to reduce costs to improve your bottom line and help finance new revenue-producing services.



### **Evolve your business—integrate business, operational support systems**

As you migrate from legacy technologies like Advanced Intelligent Network or second-generation wireless networks to newer technologies like Internet Protocol (IP) or third-generation wireless networks, you face a host of issues generated by the complex nature of your underlying business (BSS) and operational (OSS) applications. Your BSS and OSS applications were developed at different times, for different purposes—on different platforms. You have dozens of disparate, back-end systems that are essential to service provisioning, yet don't communicate with each other. And thanks to recent mergers and acquisitions, you're likely to have a vast assortment of customers and services to manage.

With so many systems involved in customer care, billing, service provisioning, network inventory management and maintenance, the task of uniting your back-end and front-end systems is daunting. To succeed in today's business climate, your OSS applications must communicate smoothly with your customer-facing BSS applications, like customer care and billing.

*“The WebSphere software platform gives us stable Web performance and gives our customers the confidence to do business with us through this channel.”*

— Eythor Arnalds, chief executive officer,  
Islandssimi

IBM can help you meet these challenges with business integration. More than just getting your disconnected systems to exchange information, true business integration helps you merge disparate processes to quickly introduce new services and retire unprofitable ones. And it can help you rapidly and efficiently implement service provisioning and unified billing for these new services. With business integration, you can even reengineer your processes—both manual and automated—optimizing your underlying IT infrastructure. By integrating your BSS and OSS applications, you can:

- *Reduce operating expenses.*
- *Improve existing services and time to market for new services.*
- *Retain and grow profitable customers.*

### **Help reduce operating expenses**

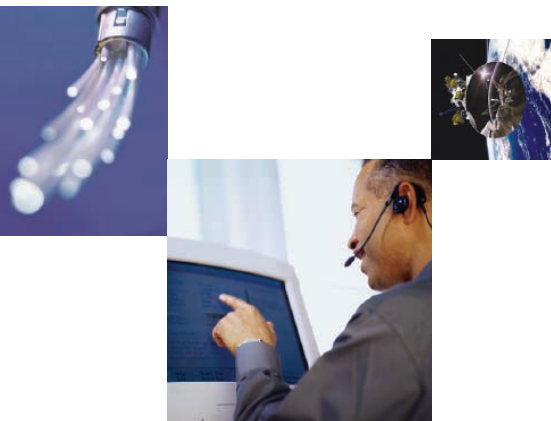
Disconnected processes are inefficient, expensive and require a large, specialized work force to handle multiple steps. It's not uncommon for large carriers to have 30 different legacy billing systems to handle multiple accounts—from long-distance service to local calling to digital subscriber line (DSL) to wireless services. Some of these systems were created in-house, some were purchased from software vendors and others came from mergers and acquisitions. Billing separately for these services may frustrate customers. It could also limit your ability to capture valuable customer data that helps increase your average revenue per user (ARPU) through up-selling techniques.

Business process integration from IBM can help you reduce billing, maintenance and service provisioning costs by streamlining your processes and leveraging investments in existing systems. The potential benefits are connected systems, departments and processes that can help boost the efficiency of your operations. Imagine the impact if your application delivery platform supported business processes as well as services. For example, if it supported provisioning and billing for new services like DSL.

To improve your provisioning processes for DSL service, all your internal processes should flow through your systems smoothly, starting when the customer orders the service until the new service is turned on and invoiced. Use e-business technology for marketing and acquiring new DSL customers. Take customer orders and process them through your call center and other business support systems. Provision the new service on the network, deliver it and bill for it, providing your customers with the option to *turn on* the service themselves through a self-service Web interface. Potentially, these improvements could yield more satisfied customers, higher ARPU and reduced internal costs.

### **Improve services, speed time to market**

As telecommunications history shows, competing through pricing alone leads to a commodity marketplace where few providers can win. For long-term success, you must improve your ARPU through new services that customers want. And do it fast. To deliver new services on open, IP technology-based networks that support voice and data, you need to invest in new applications, infrastructure and services. The return comes in the form of reduced customer churn and new customers who are enticed by offerings of new services and service bundles.



## *Islandssimi calls on IBM to capture new Web telco market*



A new provider's operational costs can drive it out of business before it can gain mind share or market share. But an online company called Islandssimi may have found a way to break through this barrier. Headquartered in Reykjavik, Iceland with only 100 employees, Islandssimi provides full telecommunications services. The company sought to minimize its overhead costs by using the Internet to support its business and residential customers.

But giving customers direct Internet-based access to what are traditionally a telco's back-end information systems required some careful thinking about how Islandssimi would store and deliver its voluminous – and sensitive – customer and traffic data. "IBM had an open architecture and the perfect tools for integrating all of our different modules," explained Eythor Arnalds, chief executive officer of Islandssimi. "We have been able to increase our multiple connectivity capabilities by 500 percent. We expect to reap a 40 percent share of Iceland's corporate data and voice services market with a cost structure that is 30 times more efficient than that of a traditional telco."

Using a Web browser, a customer can activate services and view bills, payment status, subscription rates, phone usage costs and system status reports. "It's very important that our customers have reliable and secure connections to our services," remarked Arnalds. "The WebSphere software platform gives us stable Web performance and gives our customers the confidence to do business with us through this channel."

Working with IBM, Islandssimi has excelled in its endeavor to cut its overhead costs. "The solution IBM provided allows us to be a very lean organization. We're able to do everything automatically and at very low costs – thereby allowing us to further reduce prices," explained Arnalds.

By joining disparate back-end systems to automate business processes, you can unite your customer-facing systems and service delivery mechanisms—boosting the efficiency and speed of adding new services and service bundles. And you can turn services, applications and content on and off rapidly—regardless of whether they're supplied internally or externally.

Suppose you want to bill customers based on their level of service or by content type rather than by time usage on your network. How do you approach this task if you don't have integrated BSS and OSS applications? The complexity and cost of trying to manually tie together disparate customer databases, billing systems and network inventory management systems can be staggering.

Or perhaps you'd like to offer electronic billing to your customers. Even if you already have the Web interface available for this service, it's still a complex undertaking. To offer realtime interactive billing functionality, you must unite multiple customer account and billing databases. You also have to link transaction information from your back-end systems with your interactive voice response systems, and possibly third-party applications. And the Web application you develop should be easy to use, accurate and fast—no matter how many accounts the customer has or where they're located.

### **Retain and grow profitable customers**

Service providers can spend more than US\$350 to acquire new customers, and it can take over two years to recover these acquisition costs. At the core of the problem—incompatible applications and systems that not only obscure a complete view of your customers, but also make it harder for customers to interact with you. To gain a complete, accurate view of each customer and deliver outstanding customer care, you need to integrate your OSS applications with relevant BSS applications.

By providing a rich, comprehensive customer view to support convergent billing, applicable discounts and tiered rates, you can empower your employees who make critical day-to-day business decisions. Armed with in-depth knowledge about your customers, you can begin to gauge your investments in them on the value they bring to your business. You'll be better positioned to anticipate and respond to customer needs—even before they're articulated. You'll be able to provide different offers—and unique pricing models—to your most and least profitable customers. And your customer-facing systems—like Web portals and call centers—can be updated with new information accurately and in realtime.

An integrated approach can also help you to:

- *Deliver new products and services rapidly.*
- *Differentiate yourself from the competition.*
- *Drive down the cost of service provision and reduce the rate of order failure.*
- *Take advantage of new sales channels.*
- *Leverage trading partner business relationships.*





## *Bouygues Telecom eases corporate invoice analysis with online service*



Based in Boulogne, France, Bouygues Telecom is France's third largest mobile telecom provider. Having made its debut in the consumer market in 1996, Bouygues Telecom began pursuing corporate accounts in 1999 through its corporate division, Bouygues Telecom Enterprise (BTE).

To achieve its market penetration goals, BTE needed to keep its 400 sales representatives and 250 customer-care representatives focused on acquiring new customers and selling additional services. To do so, the representatives needed to offload most of the routine customer-service inquiries they handled. Many of these inquiries came from corporate mobile-phone fleet managers, who needed help in analyzing their mobile-phone service invoices. BTE sought an application that would allow fleet managers to analyze their billing information online, anytime, from a standard Web browser – without help from a BTE representative.

According to Laurent Frappereau, Bouygues Telecom GSM applications development manager, "IBM is a major player in the e-business market in France, and its Lotus® and WebSphere software are well proven." Frappereau adds, "IBM provided a clear vision of how to develop and market our Web site and was almost the only vendor willing to commit to the deadline – and at a reasonable price." In just three months, IBM Global Services designed and implemented the Java™ technology-based extranet, dubbed eFlotte Gestion (eFleet Management). Once logged on to the site, fleet managers can view all their line usage and billing information, group users by department or function and sort billings by user, service type, minutes used and other parameters.

The extranet is part of BTE's overall plan to drive its customer-facing and internal business processes to the Web. It's a strategy the company is counting on to help reduce its cost of customer support by 10 to 15 percent, boost revenues 30 to 35 percent by 2004 and increase its market share to 25 percent.

## **Deliver premium customer care**

Imagine one of your customer service representatives receives a telephone call from a small business owner who is so upset over delays in receiving new services that he's ready to switch service providers. The customer hints that he already knows of an offer with significantly better pricing that's available from one of your competitors. How does your customer service representative respond to this call? With an integrated infrastructure that delivers realtime updates and prompts, your customer service representative could react in a way that would bring a happy ending to this call. Here's an example.

As soon as the customer's call is routed, your customer service representative accesses a complete view of the customer's history and accounts. She notices that this is a loyal, high-volume customer with an excellent two-year account history. She also notices that the customer has multiple accounts for two different businesses, including basic local telephone service, wireless and Internet service. But the customer apparently uses another company for long distance. Rather than risk losing the customer to another service provider, your customer service representative quickly identifies a special offer that could keep this customer satisfied and result in even more revenue. She offers to give the customer 60 free minutes of long-distance service monthly for each of his two accounts, if he switches to your long-distance service within the next week.





After discussing this offer with the customer, your representative takes steps to help maintain customer loyalty and boost your competitiveness. She:

- *Schedules a follow-on appointment for the account manager to meet with the customer to discuss new pricing arrangements and services.*
- *Asks questions to learn more about what the competition is offering.*
- *Finds out what new products or services the customer is interested in purchasing.*
- *Enters critical information into the computer system immediately, so that all relevant front-end systems and back-end systems can be updated—including your Web portal, customer relationship management system and even the account manager's calendar.*

#### **IBM—helping you build an integrated enterprise**

To implement new applications and to meet the challenges of quickly modifying key BSS and OSS applications to fit new needs, you want an enterprise-wide, integrated approach. IBM, a leading business integration provider, can help. IBM is a full-service technology solutions company with the skilled resources and telecommunications industry experience to help you deliver quality customer service—while you prepare for the next generation of technologies. IBM offers hardware, software, services and consulting for the telecommunications industry. In conjunction with leading IBM Business Partners—such as Siebel and Portal Software—IBM can deliver applications and solutions tailored to meet your specific business needs.

#### **The WebSphere software platform from IBM—a solid foundation**

Proven WebSphere® software platform business integration solutions from IBM help you optimize existing assets and establish business transformation strategies. With the IBM WebSphere Business Integration for Telecommunications offering, you can significantly reduce your cost of integrating BSS and OSS applications that manage customer-service delivery and other business-critical systems.

With IBM technology as the foundation of your e-business, you can build, deploy and manage your processes and services today—and be poised to add new services and processes in the future. The WebSphere software platform provides state-of-the-art applications and tools to help you deliver fundamental customer services that are dependent on the availability, reliability and performance of your core computer systems.

Set up a new contract and billing account and then have the corresponding operational support systems automatically coordinate and deliver the service. Or use the portal and commerce capabilities of the WebSphere software platform to create powerful, personalized customer self-service Web sites. Through these sites, you can offer your customers new services—ringtones, stock market or sports alerts—and accessories to suit their lifestyles.

*“Our customers tell us we are right on target with our [electronic bill presentment and payment] eBPP services. AT&T will continue to work with IBM to enhance our offerings to our small business customers and maintain our position as a company that brings e-business to its customers.”*

– Cindy Mueller, business and technology integration team, AT&T

## *SPDE – an open standards framework for service providers*



To help you deliver new voice and data services to customers quickly, easily and at a lower cost, you can leverage the IBM Service Provider Delivery Environment (SPDE). This reference architecture for the telecommunications industry is built using the industry-leading WebSphere software platform, IBM WebSphere MQ messaging software and CrossWorlds® software from IBM.

An open standards-based framework, SPDE can let you consistently create and manage new services independent of your underlying communications network. So it can be easier to introduce and modify content, applications and services. SPDE can cut development time for new services from months or years to weeks or days – so you can react faster to changing market demands. And it enhances new revenue opportunities by opening up service creation and management to best-of-breed application vendors.

SPDE was designed as a result of IBM's extensive work with other technology and service providers and customers at IBM Network Innovation Laboratories. It's built on general open standards-based technology and telecommunications industry standards, such as Open Mobile Architecture (OMA) and technology-independent application programming interfaces from The Parlay Group. SPDE can help you integrate new capabilities and processes with your existing IT infrastructure.

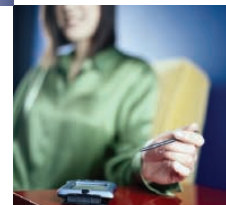
The SPDE framework addresses two areas:

- *Integration Hub, which helps service providers integrate business and operational support systems, including legacy systems and business processes*
- *Application Delivery Environment, which speeds deployment for new, revenue-generating services*

As your e-business evolves, you'll be dependent upon the integration capabilities of your technology. So you can link data and information from many different sources and multiple applications. With dynamic integration, you can empower your managers and department heads to automate and optimize your processes, delivering greater value to your customers and shareholders. And with IBM technology, you can leverage investments in your current systems by updating them to work in conjunction with your BSS and OSS integration initiatives.

With WebSphere Business Integration for Telecommunications, you can extend your connections beyond the firewall to include trading partner and supplier systems, processes and information — linking your entire value chain with their services and offerings, for increased profitability. To address some of your key business challenges, leverage IBM telecommunications experience with:

- *DSL Broadband provisioning*
- *Wireless provisioning*
- *Internet Data Center provisioning*
- *Integrated Customer Care and Billing*



The WebSphere software platform is built using open industry standards, continuing IBM's commitment to delivering high-quality tools that can shorten costly development cycles and increase developer productivity. Interoperability of the solution can help you recoup investments in existing BSS and OSS applications. And it can help you prepare for deploying next-generation networks and new e-business services.

### **Manage your business with a complete customer view**

When you build your business from an integrated foundation, your customers can benefit—and so can your entire enterprise. IBM telecommunications solutions can help you:

- *Entice new customers with new service offerings.*
- *Reduce the complexity and cost of introducing new systems and services.*
- *Deliver new value-added services quickly and cost-effectively.*

- *Enhance speed and variety of customer interactions through various low-cost channels.*
- *Enable service provisioning.*
- *Improve customer loyalty through improved billing and provisioning systems and processes.*
- *Reduce customer churn by targeting campaigns, promotions and new service offers to the right customers.*
- *Move selected services to the Web, providing all key customer information and service offers from your Web site.*
- *Automate key order-management and service processes—and link trading partner offerings with yours—to deliver faster, more complete services.*

### **For more information**

To learn more about IBM solutions for the telecommunications industry, visit [ibm.com/websphere/telecom](http://ibm.com/websphere/telecom).



*“The solution IBM provided allows us to be a very lean organization. We’re able to do everything automatically and at very low costs – thereby allowing us to further reduce prices.”*

– Eythor Arnalds



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\* The Rational Edge: "Software Development for Telecommunications: Looking Toward the Future," April 2002.

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