

Deliver new cost-effective telecom services to help generate revenue.



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Executive summary

Telecommunications companies like yours face challenges of increasing IT infrastructure and customer support costs and the difficulty of establishing new differentiated revenue-generating services in a competitive market.

An on demand operating environment helps you address these challenges. Automating the monitoring and management of your IT resources can lower costs and provide a foundation for successful new initiatives. Integrating information, business processes and resources across your organization facilitates streamlined operations and market responsiveness, helping drive profits. Enabling your employees and customers to be more productive can also lower costs and help maximize profits.

Leveraging IBM's experience with leading telecommunications companies, IBM Middleware Solutions for Telecommunications help you manage today's industry challenges and support the development of your e-business on demand. This executive brief introduces these middleware solutions and highlights how IBM can help your telecommunications company rapidly deploy new services, while minimizing costs and maximizing customer satisfaction and loyalty.

Address industry-wide challenges that increase profits

Facing shrinking profit margins, telecommunications companies naturally evaluate where costs can be minimized and where new revenue can be generated.

Cost-containment opportunities can be found throughout a telecommunications company. Over time, each division may have developed or purchased its own IT systems, often without corporate standards or a blueprint to work from. The complexity compounds when a company makes a new acquisition with its own IT systems or when a company needs to manage the IT impact of a divestiture. Regulations often lead companies to add more systems that further complicate the overall infrastructure. Across this wide variety of systems with different owners and business purposes, resources that could be shared are instead insulated and used inefficiently.

Coordinating resources across the entire IT infrastructure can be extremely complex and expensive. However, because the benefits of coordination include efficiency and services that can drive customer satisfaction and revenues, telecommunications companies eagerly seek a competitive advantage through manageable, cost-efficient solutions that enable them to better respond to customer and market demands.

“IBM software solutions have been an important contributing factor to Nextel’s industry-leading customer satisfaction.”

— Dan Getzewich, Vice President Customer Care, Nextel Communications

The cost of acquiring and supporting customers also continues to grow. The telecommunications industry faces high levels of customer churn. Among wireless providers, for example, the customer turnover rate has averaged as much as 3 percent monthly—or more than a third of customers per annum! It is expensive to attract new customers at a rate greater than the rate of customers departing. This becomes even more difficult because of the continuing decline in the average customer’s lifetime value.

In an industry where nearly everyone offers the same basic services, a new service that can truly differentiate you from your competitors—and overcome customer churn—can be difficult to find and even more difficult to deliver and maintain. When you succeed, your competitors are pressured to mimic your innovations—eventually forcing prices downward. To maximize the profitability of a new service, you must accelerate the flexibility and time to market of your offerings.

Establish an on demand operating environment to integrate resources and simplify IT management

To help your telecommunications company minimize costs and drive profits, IBM provides solutions to create a flexible on demand operating environment. An on demand operating environment integrates people, processes and information while simplifying IT infrastructure management. An on demand operating environment:

- *Uses technology in an open framework to help build the flexibility, responsiveness and efficiency that your business requires.*
- *Tightly integrates business processes end to end across the entire value net.*
- *Reuses modular components to drive efficiency.*
- *Connects components using industry-specific open standards.*

An on demand operating environment can help you connect disparate resources into a seamless, flexible and responsive organization.

IBM’s flexible solutions use the IBM Service Provider Delivery Environment (SPDE). SPDE, a telecommunications-specific reference architecture, is built from years of experience helping telecommunications customers around the world. IBM’s ongoing



commitment to telecommunications-industry open standards includes leadership in groups such as TeleManagement Forum, OSGi Alliance, Parlay Group, Voice XML Forum and Open Mobile Alliance (OMA).

Sprint emphasizes greater customer focus with the help of IBM solutions

When Sprint decided to transform itself from a product-oriented company into a more customer-focused organization, it made a substantial commitment to the IBM solution for rapidly developing wireless-enabled applications.

The IBM Service Provider Delivery Environment (SPDE) is an application-development solution that helps Sprint port desktops to mobile devices. By using the SPDE open-standards-based framework to integrate wireline and wireless services, Sprint can rapidly introduce new voice, text and Internet-based services to users of its national PCS wireless service.

For your telecommunications company, IBM's foundation for establishing an on demand operating environment consists of two main pillars:

- *Infrastructure management*
- *Integration of people, processes and information*

Infrastructure management streamlines management of existing IT resources to help lower costs

Monitoring IT resources, identifying potential problems and automatically executing

desirable responses based on business drivers helps minimize the time and resources you spend to maintain a highly available, reliable and secure infrastructure. The cost savings from infrastructure management can provide the cash to invest in new revenue-generating services.

Infrastructure management helps you:

- *Leverage and protect legacy investments in your infrastructure to lower operating expenses – IBM solutions do not require “rip and replace.”*
- *Align IT resources with your business priorities – orchestration software automatically monitors your resources and provisions them where and when they're needed most.*
- *Create a highly secure next-generation infrastructure – one that can support your new initiatives and protect information, confidentiality and data integrity.*
- *Visualize your infrastructure in business terms and manage service levels according to business objectives.*

Integrating people, business processes and information throughout your organization drives flexibility and responsiveness

Integrating comprehensive business processes across divisions, departments, customers, suppliers and business partners helps your company quickly respond to

customer needs and marketplace demands. And providing employees with secure connections to the information and resources they need from across the organization facilitates efficient and accurate decisions and enhanced customer service.

Create new value from your existing IT investments by integrating processes and information. To integrate new services with hundreds of existing legacy or commercial off the shelf (COTS) systems may take 18 to 24 months. IBM can help you transform your systems to bring new services online quickly and cost-effectively.

By integrating new investments with your existing infrastructure, you enable your employees and customers to access information and business applications when and where they need to from a wide variety of devices. This access helps them be highly efficient and productive.

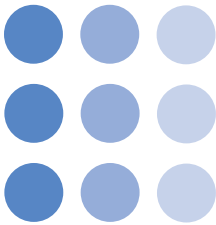
Integration enables self-service, personalization of content and access from multiple devices, helping you minimize costs while simultaneously overcoming customer churn. This integration helps give your customers flexible access and customized service that can build loyalty, keep customer support costs low and potentially create new revenue opportunities.

Integration helps you:

- *Bring new products and services to market rapidly by minimizing the time and expense of integrating new information and resources into the existing infrastructure.*
 - *Model and monitor business processes continuously – assess performance, and identify and initiate new cost-saving process improvements.*
 - *Leverage increased visibility into customer account information across multiple product lines and operating units to locate opportunities and bundle services, thereby combating customer churn while increasing wallet share.*
- *Empower employees to access and input information anytime, anywhere and from any device – by extending business applications.*
- *Interact with customers through consistent, personalized interfaces regardless of access device, driving cost reductions and customer satisfaction.*
- *Efficiently manage the life cycle of third-party digital content such as ring-tones, games, applications and video.*

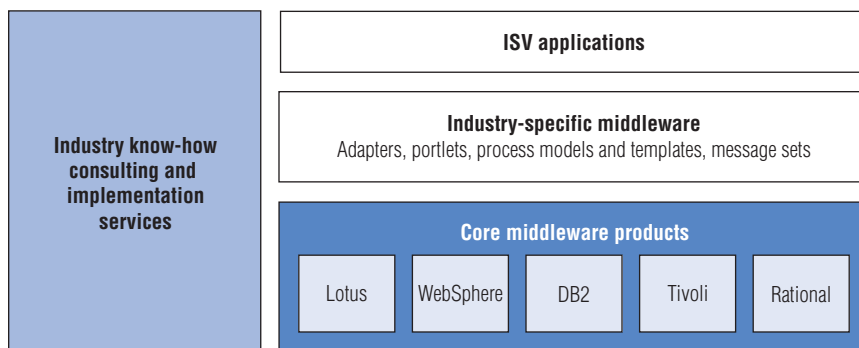
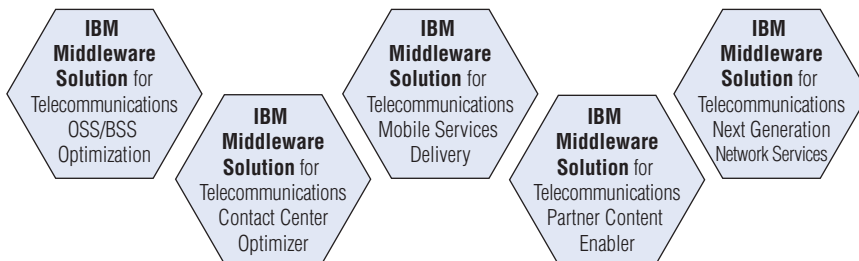
“Our IBM solution ... will greatly improve our ability to manage our customer relationships. We are a very satisfied IBM customer.”

— Eric Nagel, Data Warehouse Manager, Cellway Kommunikationsdienstes GmbH



IBM provides solutions for telecommunications service providers

To support on demand operating environments for telecommunications companies and help meet today's telecommunications industry challenges, IBM has developed industry-specific



middleware solutions. IBM Middleware Solutions are customized combinations of IBM core middleware and industry-specific middleware that, when combined with application software from IBM's network of independent software vendor partners and industry-specific services, enable customers to build an on demand operating environment.

IBM Business Partners leverage IBM middleware platforms to provide you with telecommunications-specific applications. Examples include applications for operational support systems, customer self-service and multimedia conferencing.

Each IBM Middleware Solution for Telecommunications supports your efforts to increase responsiveness and revenue while lowering costs.

IBM Middleware Solution for Telecommunications OSS/BSS Optimization

Integrates business processes across your systems and uses automation tools to align and optimize your business processes and the IT resources that support them. This helps you:

- *Streamline operations and maximize IT resource utilization.*
- *Align your IT systems with your business priorities.*
- *Create a single view of the customer that you can use to flexibly bundle offerings.*
- *Minimize service delivery and provisioning times.*

Overall, the solution enables you to rapidly respond to customer and market demands. That is why 16 of the world's largest telecommunications companies used IBM middleware within the last year to integrate their operational and business support system.

IBM Middleware Solution for Telecommunications Contact Center Optimizer

Helps you create a consistent and personalized service experience for your customers through their communications channel of choice. Customers can access their accounts

through traditional telephone, Web browser, PDA or cellular phone — in their preferred languages. When you implement the IBM solution, you can:

- *Deliver high-quality, personalized customer self-service to combat customer churn.*
- *Extract valuable insights from your existing systems to provide your customer with targeted products and services.*
- *Lower development and customer support costs.*

IBM Middleware Solution for Telecommunications Mobile Services Delivery

Because it helps you extend the value of your network, content and applications, this IBM solution helps you establish seamless connectivity, unified support and new value-added services — across your organization and across geographic boundaries. The solution can support your employees and your customers. With it, you can:

- *Enhance employee and customer productivity.*
- *Create new, customized value-added services such as customized portals, content and location-based applications – the kinds of services enterprise customers increasingly demand from a single provider and consumers covet.*
- *Leverage your existing infrastructure, as well as your customer and vendor relationships, for potential new revenue streams.*

“I think one of the most important outcomes of this project is that we have an invaluable team that works closely with us and that fully understands our requirements and environment.”

— Laurentiu Mandu, IT Director, Mobifon

IBM Middleware Solution for Telecommunications Partner Content Enabler

Managing partners' digital content and applications presents challenges — from establishing a centralized repository through securing digital rights to delivery and automated reconciliation. This IBM solution supports the complete digital content life cycle and helps:

- *Automate introduction of new digital content and applications to speed time to market.*
- *Integrate business processes – including development, deployment and billing – both internally and with your key partners.*
- *Deliver ring-tones, games, multimedia content and business applications to both consumer and enterprise customers.*



IBM Middleware Solution for Telecommunications Next Generation Network Services

To address the growing importance of differentiated services to telecommunications companies, the IBM solution offers support for developing and delivering highly secure voice and data services. These services include enhanced voice, VoIP, unified messaging, multimedia conferencing and video on demand. The IBM solution helps you:

- *Leverage a highly secure, open, resilient and autonomic network to lower ongoing operational costs.*
- *Satisfy customer demand by rapidly developing and deploying new services that help differentiate you from your competitors.*

Leverage IBM's proven track record in the telecommunications industry

IBM is a trusted advisor to many of the world's leading telecommunications companies because of its worldwide experience in developing and delivering middleware products, hardware and other technologies that support the telecommunications industry. The IBM focus on business solutions — not just IT solutions — has led more than 90 percent of the global telecommunications industry to choose IBM. Furthermore, 14 of the 15 largest telecommunications companies use IBM middleware to run their applications.

By selecting IBM, you'll quickly see the business value that IBM Middleware Solutions for Telecommunications can provide.

For more information

To learn more about IBM Middleware Solutions for Telecommunications and how IBM can help you manage escalating costs and support revenue-generating initiatives, call your sales representative or visit ibm.com/software/industries/telecom

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