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**Creating breakthrough in the
on demand world.**

 **e-business on demand™**



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Executive summary

The Economist calls it a “humble recovery.”¹ According to the *New York Times*, “Rejoicing over stock market rallies around the world, big global investors are nonetheless entering the new year cautiously”² Regardless of the publication you read, the sentiment is clear: even with the worst behind us, organizations are emerging from the last few years sobered and realistic about the challenges that lie ahead.

Even as the business world’s focus slowly returns to growth, IBM’s research around the globe shows that companies are opting for a highly pragmatic approach to all their investments. There is an acute awareness of the need to deliver tangible progress and quantifiable results. Healthy skepticism. Will initiatives that attack new markets or change key processes or implement new technologies really work? Will they make a measurable difference? With the limited number of resources available and the plethora of possible projects—why this one? Why now?

Yet within the confines of a cautious worldwide marketplace, there’s acknowledgement that something profound is happening. A year ago, IBM CEO Sam Palmisano described the era we’re entering as “the on demand world.” He said that the companies best equipped to compete in that world are *on demand businesses*—that is, enterprises “whose business processes—integrated end-to-end across the company and with key partners, suppliers and customers—can respond with flexibility and speed to any customer demand, market opportunity or external threat.”



Throughout 2003, as industry analysts and competitors began to describe these same marketplace phenomena using slightly different words, IBM was already hard at work. Side by side with industry-leading clients, we helped them navigate the issues related to winning customer loyalty in times of ever-rising expectations. Increasing organizational flexibility in the face of volatile demand shifts. Streamlining and integrating processes and increasing employee productivity by getting more out of their existing investments in information technology.

This white paper is based on that work. Its purpose is single-fold: to move the conversation from what and why—to *how*. How do I turn my organization into an on demand business? How do I prioritize, given the abundance of potential initiatives? How do I leverage the investments we've already made and make them pay off in ways that weren't originally planned? How, given the limited amount of resources I have, do I decide which tasks to tackle and with whom?

This paper has five major sections. The first section sets the context, describing what's going on in the marketplace, and what's fundamentally different about the on demand era we've just entered. The second and third sections describe the emerging fusion between new business designs and the underlying technology infrastructures that enable them. The fourth section deals with the evolution taking place on multiple fronts that allows technology to become a true enabler—rather than an inhibitor—of this new generation of flexible business processes. It also touches on the implementation options that will support these new business designs. The fifth section talks about IBM's flexible and practical offerings, solutions designed to help you maximize the impact of the resources you invest, while minimizing your risks.



2004—the landscape

Let's face it: it's been a tough few years. A look back at 2002 and 2003 puts the pain in perspective: we've seen two years of substantial declines in the capital markets and recession in the general economy, worldwide. According to most industry analysts, we've hit bottom; the worst is behind us, and in 2004, carefully managed spending will replace aggressive cost-cutting.

However, even with consumers and businesses feeling slightly more optimistic, business leaders have emerged from the last few years acutely aware of the challenges that lie ahead. During late 2003, IBM completed a study with chief executive officers from around the world. What they told us is very interesting:

- *Growth is back on the CEO agenda.*
 - *Eight in ten view growth as a key focus area.*
- *Clients are concerned that their companies are not agile enough.*
 - *Eight in ten rate "rapid response" as a high or very high priority.*
- *Clients view product and service innovation as a top priority.*
 - *Nearly two-thirds view product/service improvement as one of the greatest opportunities for revenue growth.*
- *Clients seek company-wide transformation with a short time horizon.*
 - *More than nine in ten believe they need to achieve their transformation goals in less than five years; nearly half think they need to do so in less than two years.*

With growth, agility and innovation back on the agenda, the next question is obvious: How? In September 2003, *Harvard Business Review* published an article entitled "Quest for Resilience."³ In it, the authors introduced a profound notion that, in essence, says that in light of today's reality, it's going to be hard to get better without fundamentally doing things differently. "In the past, executives had the luxury of assuming that business models were more or less immortal. Companies always had to work to get better ... but they seldom had to get different..."



Getting better is precisely what businesses have done over the last few decades as they focused on the transformation of their core business processes. Consider the eras of Six Sigma Quality, Zero Defects and Business-Process Reengineering—eras in which technology was applied to improve an existing business model.

Better vs. Breakthrough

The age of business process reengineering	↔	The age of on demand business
Zero defects	Objective	Zero latency
Efficiency within the firm	Scope	Productivity throughout the value net
Sustainable advantage	Outcome	Continually evolving strategic advantage
Continuous improvement	Focus	Continuous innovation

We believe that what makes the on demand era different from those that preceded it is the fact that there's not only the opportunity to get better but also an opportunity to create a major step-function improvement—to breakthrough. Getting better is about applying technology to do what you've historically done more efficiently. Breakthrough comes when new business designs are coupled with the technology that makes them happen. To clarify this fundamental concept, it's worth looking at the differences between the business process reengineering and on demand eras:

- *The first difference has to do with objectives. Whereas the objective once was to eliminate inefficiencies within the processes an organization owned, today, most companies recognize that they've squeezed out almost all of the cost and time they're going to find in process silos. Now the name of the game is **eliminating the latency** that's being created by the gaps between processes, functions, business units and organizations within the value net.*



- *The second difference has to do with scope. Instead of focusing almost exclusively on increasing efficiency within an organization, companies are now focused on increasing **productivity** throughout their value nets. They're focused on enabling a true, end-to-end ecosystem that encompasses customers and suppliers.*
- *The outcomes companies strive to achieve also differ. Where historically they've had the luxury of building sustainable competitive advantage, today's savvy executives recognize that **strategic advantage** is more dynamic (and perhaps fleeting) than it has ever been.*
- *The ultimate difference between the on demand era and those that have come before—the fundamental difference between better and breakthrough—is the difference between continuous improvement and continuous **innovation**. Continuous improvement is leveraging technology and expertise to do the same thing more efficiently. Continuous innovation is the fusion of new business designs and next-generation technologies to actually do things differently, not once, but over and over again.*

Supply chain management (SCM) is just one example of a common business process that saw major change in the business process reengineering era. In the on demand era, it will undergo a more radical transformation. Technology has had—and will continue to have—a tremendous impact on SCM. In the past few decades, we've seen the industry evolve from using enterprise applications and barcode technology to improve inventory management practices within a single enterprise, to applying open standards and Internet connectivity to improve collaboration among all the partners in a supply chain to reduce inventory and associated carrying costs. And in the very near future, we can expect to see the powerful combination of radio frequency identification (RFID) chips and wireless communication technologies enable retailers to speed goods from suppliers to the shelves, realizing the promise of just-in-time merchandising.



Breakthrough in Supply Chain Management

	Better	Better	Better	Breakthrough
	Inventory Management	Supply Chain Collaboration	Just-in-time Merchandising	Integration of SCM and CRM
Technology enablers	<ul style="list-style-type: none"> Enterprise applications Barcodes 	<ul style="list-style-type: none"> Open standards Internet connectivity Enterprise applications Barcodes 	<ul style="list-style-type: none"> Radio frequency identification chips Wireless communications Open standards Internet connectivity Enterprise applications Barcodes 	<ul style="list-style-type: none"> Price drops on RFID chips, enabling them to be embedded in individual items Wireless communications Open standards Internet connectivity Enterprise applications Barcodes
Business model	<ul style="list-style-type: none"> Profits = unpredictable sales minus fixed cost of goods and cost of maintaining excess inventory 	<ul style="list-style-type: none"> Profits = unpredictable sales minus lowest available cost of goods and cost of maintaining minimal inventory 	<ul style="list-style-type: none"> Profits = predictable sales minus lowest available cost of goods 	<ul style="list-style-type: none"> Profits = increased sales based on customer insights minus lowest available cost of goods

This focus on increased productivity and better information flow throughout the supply chain can have an enormous impact; the fact is that more than eight percent of the items consumers go to the store to buy are out of stock—and that rate regularly exceeds ten percent for faster selling or promoted products.⁴ Yet, the step-function improvement—the breakthrough—may still lie ahead as the price of RFID chips continues to drop, ultimately enabling them to be embedded in low-cost individual items. This powerful enabling technology, coupled with the integration of two critical business processes—SCM and customer relationship management (CRM)—will enable the entire ecosystem to know more about what’s being sold and more about the customer. Possible areas of breakthrough include a more personalized shopping experience, more successful product launches and the ability to optimize pricing in real time based on demand.

In today’s pragmatic environment, few organizations are prepared to make a wholesale move to operating as an on demand business. Most companies opt to take a more incremental approach, choosing from multiple possible entry points. A company may choose to focus on one key process and transform it. Another company may decide to simplify its operating environment—increasing overall flexibility and resilience while reducing the resources its current approach



requires. Experience has shown that regardless of where you start, it's actually possible to reduce the costs associated with the way you're approaching things today—so you can free your resources to help you continue to fund your journey toward becoming an on demand business.

Business transformation

For too long, the term *business transformation* has been misused—and abused. Too many consultants use it as shorthand for expensive multiyear engagements that deliver dubious results. When IBM talks about business transformation, we mean a single or series of targeted and coordinated change efforts that address specific business issues facing our clients. The efforts are supported with quantified business cases and identify the tangible, concrete improvements in competitiveness and productivity that can be achieved.

When we talk about business transformation, we're talking about developing new business designs that leverage the people, process and systems investments you've already made by making them work together in new ways. Taking existing processes—those that help you manage the back office, marketing, sales, new product development and fulfillment—and integrating them so they'll work together more efficiently.

Why focus on integrating processes and functions? Virtually every company we talk to believes that they've done a good job of optimizing their individual processes or functions and that they're unlikely to squeeze much more productivity or cost savings out of them. Or out of their back-office systems, manufacturing systems or key suppliers, for that matter. There's a real opportunity, however, to integrate these disparate, standalone operations and optimize them as an integrated whole so they work better together and deliver additional business value.

When you begin to talk about business transformation or new business designs, the conversation can't stay high-level or generic for long. You need to deal in specifics—and specifics differ by industry. In the electronics industry, for instance, the specifics have to do with managing the volatility of demand and designing a more responsive supply chain, while a telecommunications company might need to deal with the challenge of launching profitable data services and increasing average revenue per customer.



To help us stay at the leading edge of these industry issues, we created the IBM Institute for Business Value. This worldwide institute, staffed by experienced strategy and operations consultants, provides research and analysis, dialog with industry experts, and client events focused on critical industry and cross-industry issues.

Throughout the year, teams from the institute collaborate with business executives from leading companies and with IBM professionals about studies designed to help business leaders:

- *Anticipate industry changes*
- *Identify and assess strategic alternatives*
- *Quantify the expected return on key initiatives*
- *Formulate roadmaps for moving forward*
- *Determine the best metrics for measuring success.*

While the issues and opportunities may differ by industry, our methodology for analyzing potential new business designs doesn't. We believe it's essential to combine in-depth industry expertise with sound methodology. Over the past year, IBM Business Consulting Services and IBM Research and Development teams have come together to do a lot of work around component-based business models. While the concept has been around for a long-time, we've focused on taking the component notion from generic to industry-specific and from conceptual to highly practical and operational. This includes creating methodology around linking a business component (and all of its parts—people, strategy, operations, etc.) through to the technology (applications and infrastructure) that will enable it.

We started by creating component business models for six industries (six more will be completed in first quarter and the remaining six will be done in early second quarter). These models are designed to simplify the way a business



looks at itself by identifying the unique set of business building blocks (components) it's made up of, allowing a more effective coupling between changes in business operations and the underlying technology infrastructure. This strengthens your ability to connect change and investments with the business outcomes and returns that you anticipate.

Once you've broken down the business into its components, you can begin an objective analysis of which processes can actually help you differentiate your business and therefore offer opportunities for management focus and operational redesign; and which are simply required to keep the doors open and the lights on. You can also more effectively analyze costs: which components require high capital outlays, which are high cost, and which are both high capital and high cost. Obviously, components that aren't differentiating need to be carefully examined through the lens of cost.

As a result of viewing your business in multiple dimensions, you can begin to prioritize your transformation initiatives. You'll also have a clear picture of some possible tradeoffs—where you need to invest more resources—and where you might free up resources by opting for a different way to access the capabilities you need—through an outsourced partnership, perhaps.

Last year, when we began to increase our focus on outsourcing, the pundits assumed that we meant the outsourcing of IT operations. And yes, that's part of what you might choose to outsource. But let's take a broader view: stop and think about the things your organization has to do to keep the doors open—things that are neither differentiating nor core competencies.

What kinds of processes might fall into those categories? Human resources, procurement, customer care and finance administration are just a few examples. They're fundamentally important. And yet, for most companies, they're not core competencies. By outsourcing such processes, companies have found they can achieve fundamental differentiation—better levels of customer service and global reach—while freeing up resources to invest in other initiatives.



Kookmin Bank

After merging with its biggest rival in November 2001, Kookmin Bank is now the largest financial institution in Korea, with US\$160 billion in assets, more than 1,200 branches and 26,000 employees. The CEO has committed to make Kookmin Bank the leading bank in the Pan-Asian region, including China and India.

To achieve this lofty goal, the company needed to increase efficiency in order to free up the resources necessary to fund its growth. But it also recognized that increasing efficiency would not be enough. The bank needed to ensure that it would continue to meet or exceed the demands of its customers, even as those demands continued to grow. To do so, Kookmin Bank recognized the need to create a complete view of its customers across the enterprise, but it found that the complexity of its organization kept getting in the way.

Working together with IBM, leaders of Kookmin Bank took a hard look at the entire organization—14 business units, with the customer as the common touch-point. On the one hand, there was lots of inconsistency—for example, different channels in different business units were all using different marketing tactics. However, in the midst of all this inconsistency, the leaders were surprised to learn that many processes were nearly identical from business unit to business unit. Almost 40 percent of the duplication was within the processes around manufacturing and distribution.

The outgrowth of this analysis was to create a new business design—one that is organized around business process components rather than business units. Each component works seamlessly with those it affects—for example, the credit-scoring component works not only with loans and credit cards but also with retail and corporate segments.

Components are being designed to operate independently, in the physical location that makes sense. Some will no doubt be outsourced. The bank's leaders recognize that it will take time to complete the transformation to their componentized business design, a move expected to save them more than \$250M. And implementation is underway today, first targeting areas like payment processing, where the payoff is highest, with savings being reinvested to implement subsequent phases.



With growth and business transformation back on the corporate agenda, a disciplined methodology for analyzing the business and setting transformation priorities is essential. Yet, in reality, the gap between what people want and what they actually have is where most business transformation initiatives stall. Here's what we know from experience:

- 1. The highest-impact transformation priorities are typically horizontal processes.*
- 2. These processes not only cross divisional boundaries, they likely cross company boundaries as well.*
- 3. Today, the core functions of the new processes that you want to build are enmeshed inside vertical (perhaps business unit) silos—and the monolithic applications and infrastructures that have been built to support them.*
- 4. Most organizations aren't interested in starting from scratch (i.e., rip and replace), and they probably don't have an unallocated budget either. And so traditional delivery and financing models aren't feasible.*

Enabling horizontal business process integration

Virtually everyone we talk to is interested in finding innovative ways to differentiate their businesses while continuing their focus on increasing productivity. Yet, we believe that most organizations are going to need to take a different approach than they have in the past. Historically organizations have focused on the automation and optimization of single, standalone processes. Think for a minute about the functional automation that's gone on around your sales organization. If you're like many companies, you've spent a lot of money on sales force automation and CRM software—and that's true whether you built your own or chose packaged software from one of the industry leaders.



But the automation process didn't stop there. You've enabled your sales force to work around the clock—to access their applications any time, from anywhere—from a growing number of devices. And the infrastructure that was necessary is astounding. Servers, storage, communications infrastructure, security—and once you had it for your direct sales channel, you had to replicate most of it for your partners.

But as we all know, the sales organization doesn't operate in a vacuum. It's part of an ecosystem that includes marketing—and a whole array of Web-based marketing and sales initiatives. No doubt the individual disciplines within the ecosystem have undergone similar optimization and automation initiatives.

Marketing has invested in Web-based programs to help generate leads, enable customers to access information and educate themselves. And most companies didn't stop there; they invested in loyalty programs designed to simplify transacting business with key customers. There's a whole burgeoning set of applications and corresponding infrastructure to support commerce, lead tracking, digital asset management and personalization. And many benefits have been achieved.

For organizations that have invested enormous energy and resources on optimizing the discrete functions of sales and marketing, there's probably little to be gained from focusing on either process discretely. The real gains to be made are in the gaps between the disciplines—that is, in the interactions between the organizations. Creating joint processes backed by information-rich records on every prospect and customer can make the marketing and sales operation a lot better. The opportunity for breakthrough comes when it's possible for customers to self-identify—to tell you what they need and how soon they need it. It comes when your marketing infrastructure can support processes that proactively nurture each customer and that provide him or her with the right information at the right time, all while recording every tactic for future analysis and optimization.

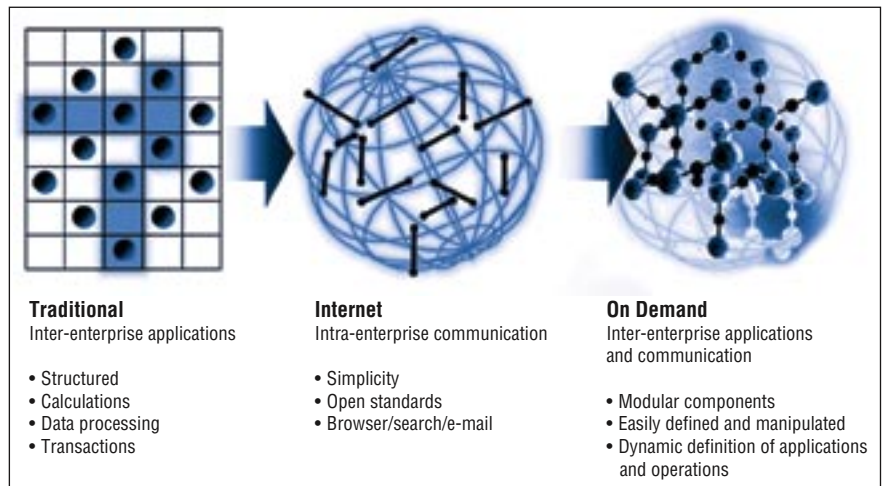
To create that kind of integrated horizontal process, you're going to need discrete bits of process and application functionality that exist within the confines of marketing, sales and the Web. And the desire to achieve breakthrough in your marketing and sales processes (or any other horizontal process, for that matter) is going to force you to think about your IT agenda in new ways.



The on demand operating environment

Reality: Today's infrastructure is complex. It's rigid. Too often, the limitations of the infrastructure and the way it's been implemented force you to compromise your approach to solving problems. That has to change. As we see it, the on demand operating environment must—and does—blend the robust nature of the traditional IT computing model with the open-standards-based computing model that enabled the Internet and the Web. And yet it transcends both models, in a number of ways.

Emerging On Demand Computing Model



The **traditional IT model** has focused on calculations, data processing, transactions and other highly structured tasks. This model has served us incredibly well for those highly structured applications and will continue to do so over time. But it breaks down when you try to extend it into applications or processes that aren't so highly structured—long-term ERP projects, for example.

The **Internet computing model** had a different design point. It gave us simple mechanisms, based on open standards, to link together many components, which you can use to perform relatively simple functions like browsing and searching for information and sending and reading e-mail. It soon became clear that Internet standards and mechanisms had to be extended to handle more sophisticated applications.



The **on demand operating environment** is a computing model that builds on both models, leveraging industry standards to redefine how existing systems and technologies interact. This enables the creation of a highly modular environment where application and infrastructure components can be easily defined and manipulated. All enabling a much more flexible and real-time implementation of business policies than was possible with more structured computing models.

Characteristics of an on demand operating environment

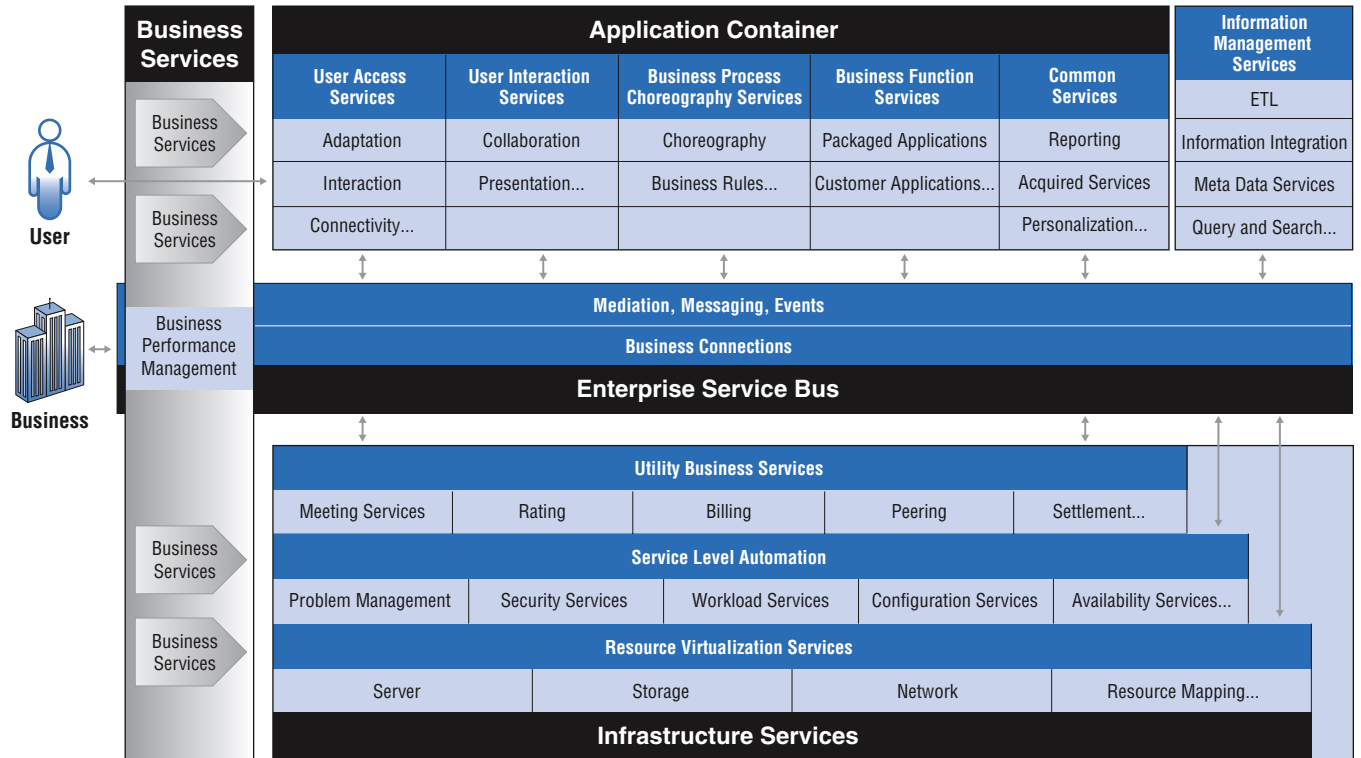
In an on demand operating environment, the first focus is to increase business flexibility through capabilities designed to speed integration initiatives. The ability to connect people, processes and information in a way that allows your organization to become more flexible and responsive to the dynamics of your markets, customers and competitors is critical. And it becomes increasingly so as you extend your value net to more tightly integrate partners, suppliers and customers into your processes. The use of open standards makes it possible to more rapidly integrate processes that weren't built to work together. With open standards, you don't have to re-create applications every time some piece of hardware or software changes or rewrite the application to support changes in the dependent processes.

Our second priority is IT simplification, the creation of an infrastructure that's easier to provision, deploy and manage. How? Through the creation of a single, consolidated, logical view of and access to all the available resources in a network. Many organizations have become comfortable with the practice of over-provisioning, buying excess capacity so they can handle the occasional spikes that almost every system experiences. Interviews and surveys with more than 20,000 clients tell us that simply eliminating the practice of over-provisioning by moving to an infrastructure that accommodates dynamic resource provisioning can reduce an organization's capital investments by anywhere from 15 to 35 percent.

The ultimate insight is this: In order for more flexibility and componentization to be achieved in your business design, your infrastructure must evolve from silos of complex, over-provisioned, proprietary hardware and software to an open-standards-based infrastructure, where capacity can be optimized across your entire organization.



The Operating Environment Architecture



The on demand computing model applies at various levels in the IT stack. At the system level, the components are system objects (e.g., computing capacity, storage, files). At the application level, components are dynamically integrated application modules that constitute sophisticated, yet much more flexible applications. At the business level, the components are business objects, defined for particular vertical industries or more generally, as they apply horizontally across industries. And because the on demand computing model is based on open standards, it can be used to define the business, applications and systems at various levels: within a department, across an entire enterprise or throughout an industry ecosystem. It enables true end-to-end business process integration.



But is it real?

Over the years, there's been much discussion about taking a more componentized approach to software and infrastructure development. While most organizations have made progress, it hasn't come without challenges. What's changed to make a componentized infrastructure viable today? First, industry standards with which to create services and have them communicate have evolved and been agreed on by major vendors. In conjunction with broad industry support, we're now tackling business-level interoperability, as opposed to simple connectivity. Second, the infrastructure to support self-defined, loosely coupled services has emerged. And finally, tools to incorporate existing assets are now available.

As a result of the maturation of these standards, the on demand computing model can enable a modular approach to infrastructure, including software design, development and execution. The industry term for this approach is service-oriented architecture (SOA). In an SOA environment, every application and resource is treated as a service. These services have interfaces that are defined according to industry standards, enabling them to exchange structured information and providing the flexibility to treat not only applications and their underlying infrastructure, but also business processes, as components that can be mixed and matched at will.



The Guardian Life Insurance Company of America

In a fiercely competitive industry and in the midst of an economic downturn, The Guardian Life Insurance Company of America (Guardian), the fourth largest mutual insurance company in the United States, wins business by making it easy for its business partners—independent agencies and agents—to sell its insurance policies and financial services to individuals and customers. Although annual revenues grew in 2002 by 3.5 percent, the growth was not enough to offset costs and the company posted a US\$283 million loss.

Guardian realized that it had many silos of information managed by different business units, and this was undermining its ability to run its business profitably. Choosing to focus first on its sales channels because its agents represent a primary source of revenue, the company found that its business processes and systems were actually hindering its partners. Agents simply did not have the time or resources to search multiple databases for cross-sell and up-sell information, successful sales strategies and customer information records. And independent agencies could not easily access comprehensive sales compensation program information to help with recruiting and retaining key sales people. To drive more revenue more efficiently, Guardian needed to integrate its business processes and the information infrastructure that supported them.

A cornerstone of the company's solution was a redesign of its underlying enterprise technology infrastructure. Guardian developed a services-oriented architecture that integrates with legacy systems and uses open standards to ensure flexibility for future development. Using this services-oriented architecture, Guardian created two critical applications to help its agents: a Web-based unified client view tool that show agents all the products that individual customers have purchased from the company; and a Web-based tool that shows agent what the future value of the business they are doing with Guardian will be, a very effective tool in retaining a good sales force.

Now, many of Guardian's agents do business with the company because of its agent-oriented technology, rather than in spite of it, as was common in the past. And while becoming more responsive to its business partners, the new architecture has allowed Guardian to drive down costs: IT expenses alone have dropped 30 percent over the last two and a half years. In the future, Guardian will continue to use this open-standards-based architecture to develop new applications and services that cut across its information silos, making it possible for its partners and employees to work more efficiently and effectively.



Why now?

Technology makes it possible

Technology has gone from being a barrier to being an enabler. And without tremendous strides in the next generation of enabling technologies, it would be impossible to implement these new designs. This includes Linux as an open-source operating system, advancements in processing speed that enable smarter, smaller devices, autonomic technologies to enable systems to manage and heal themselves, and the maturation of Web services and related standards that begin to make interoperability among applications a reality.

Take the notion of open standards and their broad adoption. We all know that Linux use is growing fast. A 2003 survey by Goldman, Sachs & Co. shows that 39 percent of large corporations now use Linux.⁵ And this is just one example of the growing adoption of open standards. Technologies become exponentially more powerful when they work together, enabling organizations to connect without expensive infrastructure and applications.

Another key enabler is processor speed—not just the steady increase in the raw computing power of the chip, but what can happen when you apply that power with a standards-based approach. And it's at the intersection between computing power and open standards that grid computing lies.

When IBM started talking about grid computing a year ago, people said we were making a futuristic statement. But today, there are already more than 100 IBM clients—financial services companies, insurance companies, distribution companies—using grids to help them with the analytics they need to better understand their customers and the nuances of their businesses. Whether it's processor speed or storage or bandwidth or networked devices, power is increasing while costs are decreasing.



While the technologies are interesting in and of themselves, probably the most significant aspect of all these advancements is what they've done to the costs of interaction. Whether you're talking about the cost of a consumer making a purchase or checking the status of an order, or the cost of an interaction between a business and its suppliers, technology advancements are driving interaction costs down. And it's these reduced interaction costs that enable information and tasks to flow seamlessly and cost-effectively across horizontally integrated processes—even when those processes actually consist of work being done in multiple organizations.

The marketplace makes it inevitable

While technology *enables* shifts in the supply-and-demand equation, it's the marketplace that *compels* them. And as often as these shifts threaten old sources of revenue and profit, they open up opportunities to create new ones. Here are a few examples:

HRsmart is a growing application service provider (ASP) providing Web-based recruitment and talent-management services. With operations in the U.S., Mexico and Brazil, it has more than 1,000 clients, including Dupont, Sylvan Learning Centers, Avis, Deloitte Consulting, Sprint, Aramark and Verio. To improve the company's marketability to large enterprises, HRsmart's management set out to speed response times and enhance its ability to accommodate growing volume. The company needed the ability to scale quickly while keeping costs in line with current demand. So we worked with them to implement a hosted infrastructure solution encompassing virtual Linux servers and storage resources.

The solution provides capacity on demand and nearly limitless scalability, at a cost savings of 20 to 30 percent. It also lets HRsmart scale capacity dynamically to accommodate fluctuating customer demand for human resources business processes. The company now delivers new ASP solutions faster and less expensively than its competition can—taking new offerings to market in days rather



than months, and beating competitors' prices by up to 50 percent. HRsmart is one of only a few providers to remain profitable in the recent economic downturn. In fact, sales are up and fully 50 percent of the company's clients have converted from a competing solution.

At the turn of the millennium, the retail conglomerate **Saks Incorporated** had just completed a series of major department store chain acquisitions that left it with a collection of overlapping operations. By 2001, it had revenues of US\$6 billion and 50 thousand employees. The company needed to control spending and reduce operating costs in order to improve its financial performance. Saks also sought to divest itself of non-core operations. The company worked with IBM to deploy an Ariba e-procurement solution that helped it centralize spend management, and streamline and automate competitive bidding and contract negotiation processes with suppliers. Enterprise applications now enable sourcing agreements through reverse auctions that determine the best possible price for commodity goods—with savings in the millions. Product catalogs are updated automatically to reflect current information. A related application enables paperless expense reporting and employee reimbursement, further reducing overhead. In addition to a 12 to 14 percent savings in procurement costs, Saks benefits from higher productivity and capital efficiency, more financial predictability, reduced operational risk and an increased ability to focus on core initiatives, since it can easily outsource non-core tasks to strategic partners.

As you can see by looking at the customer scenarios outlined in this paper, on demand businesses run the gamut—large and small, young and old, dot-com service providers and industrial manufacturers, and everyone in between. They span a range of industries as well. While Kookmin is the leading bank in Korea, Guardian is the fourth largest mutual insurance company in the United States, and Saks is a Fortune 500 retailer, HRsmart is a relatively small company—and a young one.



The name of the game is flexibility

Your transformation to an on demand business may be rapid or gradual, partial or total. But it's unavoidable if you are to remain viable. The successful business is the responsive business—the business that has designed optimal flexibility into its business processes and IT infrastructure—from the ground up. The potential is real. But unlocking that potential requires service delivery models and financing options every bit as flexible as the capabilities they enable.

IBM has created a set of offerings designed to help you deploy, manage and pay for the assets you need to ensure that your infrastructure has the capacity necessary to handle the demands of your business. They enable you to capitalize on the economies of scale that IBM delivers and at the same time reduce financial risk in the face of volatile demand. Above all, they're designed to be flexible—so your business can be, too.

We know your operating environment may be composed of pieces and parts of solutions from multiple vendors, so we take a holistic approach to enabling your long-term success. We will finance non-IBM products, including ISV software. We can manage your existing assets as well as deploy new capabilities. You may want to start with something as simple as server consolidation, for example. And we'll always look for ways to help you free up cash that can be used to fund your on demand initiatives. The goal is to help you realize measurable benefits as quickly as possible—and progress incrementally as you can and want to. In the process, we can help you mitigate risk by shifting to IBM responsibility for things like guaranteed service levels and implementing a variable cost structure that lets you pay for only what you use as you use it.



Start at the beginning, with the end in mind

The potential benefits of the on demand model are astounding. But the path to get you there doesn't need to be overwhelming, or risk-laden. It's a matter of starting and continuing with **incremental** projects based on the needs of your business. Reinvesting cost savings from increased business and IT efficiencies. Leveraging existing assets and investments. What can your business do today to simplify its IT operating environment and create business flexibility?

There's more than one way to tackle the challenge of becoming an on demand business. Kookmin Bank started with business transformation—the component business model—eliminating costs by streamlining common processes. HRsmart began with technology infrastructure optimization—virtual infrastructure based on open standards to provide a variable cost structure. And Saks took an approach that used Web-based enterprise applications to enable new processes altogether—saving money and enhancing competitive advantage. Whether the focus is innovation or new efficiencies, the goal is to free up capital for reinvestment in the growth of your business.

Given the volatile economic climate, the eventual recovery of the IT market will inevitably focus on investments proven to save or make money in the short term. But equally important this time around will be investments that maximize flexibility. And that's the beauty of the on demand model. It makes technology an enabler of innovation and growth. It enables you to usher in a new generation of integrated business processes. And it provides an unprecedented level of flexibility—to change when you're ready and to grow the way you want to. To build and support the kind of applications you need. To access capacity and storage the way your business needs dictate. And to pay for it the way you want—on an as-needed basis, only as you need it. To become an on demand business.



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