



**Smart Work for a smarter planet: Empower people
and embrace change**



“The world is becoming not just smaller and flatter, but also smarter.”

“... for the first time in history almost anything can become digitally aware and interconnected. With so much technology and networking abundantly available at such low cost, what wouldn't you put smart technology into? What service wouldn't you provide a customer, citizen, student or patient? What wouldn't you connect? What information wouldn't you mine for insight?”

— *Sam Palmisano, 2008*

Something meaningful is happening. The world is getting smarter, providing us with an opportunity to think and act in new ways—economically, socially and technically. An infusion of intelligence and interconnected technologies are literally changing the way the world works. Consider the following:

- Worldwide mobile telephone subscriptions reached 3.3 billion in 2007—one for every two people on the planet.¹
- Every day, 15 petabytes of new information are generated, more than 8 times the information contained in all U.S. libraries.²
- We are heading toward one trillion connected objects—comprising “the Internet of things.”³
- By 2010 there may be 30 billion radio frequency identification (RFID) tags produced globally, embedded in products, passports, buildings—even animals.⁴
- Large companies experience up to 800 billion business events daily.⁵

As the planet becomes a smarter planet—and more human beings, man-made systems and natural systems become interconnected, instrumented and intelligent—we begin to achieve unprecedented freedom to build, assemble, reassemble, and link resources and talent.

Today's imperative: Adapting to New Demands

How do we begin to harness the power of these technologies in our workplaces? Still too often we work in isolation making uninformed decisions using ineffective processes restricted by IT systems unable to change. Consider:

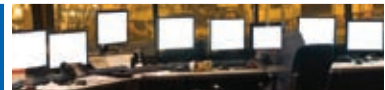
- Every week, businesses waste 5.3 hours per employee because of inefficient processes and collaboration.⁶
- 42 percent of people say they are forced to make decisions with the wrong information at least once a week.⁷
- 91 percent of CEOs say they need to restructure the way their organizations work.⁸

- Any-to-any linkage of people, process, and systems to accomplish goals faster
- Social media and the Internet used to collaborate on work within and outside the enterprise
- Globally integrated resource pools accessible and combined through dynamic processes across the value chain
- Enabling unified visibility and processes across all touch-points



Instrumented: Sensors are instrumenting not just “things,” but entire ecosystems of supply chains, partnerships, services, customers, infrastructures, even nature’s systems. Next-generation analytics make every transaction within those ecosystems a source of insight.

“When you’re finished changing, you’re finished.” — *Benjamin Franklin*



Smart Work: Redefining the way people work on a Smarter Planet

Smart Work is about differentiating your business by redefining the way your people work to meet new business demands. It’s about cost effectively building and deepening connections among people, systems, and [processes](#) in and beyond organizational boundaries. Deeper relationships fostered by reaching people in the new ways they live and work helps build sustainable advantage.

To work smarter, people, process, information and technology must come together—succeeding with solutions that are interconnected, instrumented, and intelligent.



Interconnected: Think about the prospect of a trillion connected and instrumented things—cars, appliances, roadways, pipelines...even pharmaceuticals and livestock. And then think about the amount of information produced by the interaction of all those things. It will be unprecedented. Built on ecosystem thinking, we can tap into the collective intelligence of the entire value chain through the connection of whole systems.

- [Event](#) capture and filtering for timely response and smarter business outcomes
- Sensor solutions that deliver new insights for action and improved business agility
- Ubiquitous collaboration-enabled devices, services, and applications that allow us to capture people’s awareness and expertise from anywhere at any time
- Visibility into outcomes, enabling predictive decision making
- Systems that automatically adjust and adapt to your business instead of dictating how your business is run



Intelligent: Virtually all things, processes, and ways of working are becoming intelligent. New computing models can handle the proliferation of end-user devices, sensors, and actuators and connect them with powerful back-end systems and advanced analytics to turn mountains of data into intelligence. That intelligence can be translated into action, making our systems, processes, and infrastructures more efficient, more productive, and responsive.



- Capture and share expertise, enabling other people to [discover](#) it, and continuously improving our collective knowledge on any subject
- Enable work to be automated for and changed by LOB leaders
- Leverage best practices, processes and business models, including business architecture and industry models
- Use and reuse information, applications, expertise and resources from the optimal source at any given time

You can build Smart Work capabilities.

Smart Work—implemented across the business—will revolutionize the way people, organizations, and technologies work with each other and interact, by enabling you to:

- Sense process exceptions and collaborating to resolve in real time.
- Know where your in-process components are on the factory floor.
- Know immediately about inventory changes in your supply chain.
- Productively engage tens of thousands of people in your innovation process.

Let's take a closer look at how IBM can help you work smarter!

Optimizing Business Performance

Processes that harness new insights work smarter to drive the efficiency and agility critical for success in today's volatile economic environment by:

- Automating processes to maximize efficiency and effectiveness.
- Capturing and acting on critical real-time business insight.
- Adapting and responding dynamically to meet rapid changes.

Today's business processes must be armed with new insights—insights from events, sensors, and systems. We not only see and react to events, but we also recognize patterns across many events. Contextual, trusted information driving new insights is key to enabling the people behind dynamic processes.

Smart Work in action

Reliance Life, an insurance company founded in 2003, has grown significantly in short order, becoming the third largest private insurer in India in 2008. To continue moving forward, Reliance Life planned to:

- Open 400 new branches across India.
- Achieve market leadership.
- Ensure continuous innovation and development of products.
- Increase flexibility.

To meet these goals, Reliance Life recognized that they needed to work smarter.

Teaming with IBM, Reliance Life created the "Virtual Office." Implemented as a comprehensive portal—leveraging business process management, collaboration and SOA—Virtual Office acts as the focal point of real-time collaboration and interactions. This self-service infrastructure provides employees, agents, and customers with the information they need, when they need it, through a variety of channels. The Virtual Office increases accessibility and reduces redundant processes and procedures, and increases Reliance Life's ability to react instantly to customer demands—giving it an edge in an extremely competitive market.

As a result of the Virtual Office project, Reliance Life has been able to:

- Reduce time to market for new products.
- Increase sales by allowing agents faster access to information.
- Improve information access for all stakeholders.
- Increase internal efficiencies through redesigned workflows.

IBM's portfolio and experience across all process maturity levels help deliver the power of [dynamic processes](#), making it possible to:

- [Automate](#)—automate processes end to end to reduce costs while increasing efficiency.
- [Act decisively](#)—support smarter actions and decisions through real-time visibility and insights.
- Innovate—accelerate the creation of a differentiating business model.
- [Adapt and respond](#)—faster and easier response to change.

IBM Solutions

- [BPM Suite](#) and Operations Strategy services
- [WebSphere ILOG](#)

Redefining How People Work Together

People and organizations work smarter together by making [collaboration](#) a fundamental part of how work is done, by:

- Building stronger relationships.
- Making people more productive.
- Extending expertise and fostering innovation.
- Enabling people to work together in cost-effective ways.

Tremendous untapped value lies in the passion, expertise, and relationships of all people associated with the organization. Increasingly, business success is shaped by a company's ability to engage and excite customers, employees, and business partners in more social and collaborative ways.

Companies are looking for ways to foster and harness these connections to drive greater efficiency and productivity in the way people work, while multiplying the brainpower of a finite sized organization. Indeed, 71 percent of CEOs plan to place greater focus on external partnerships and collaboration that extends beyond the traditional walls of the enterprise.⁸

IBM, as a leader in organizational change and the use of social software and collaboration products and services, provides you with the ability to:

- Connect—strengthen relationships among customers, partners and employees to differentiate.
- Collaborate—enable real-time collaboration in the context of business process.
- Innovate—unlock innovation and hidden knowledge through broad participation and the delivery of trusted information.
- Optimize—develop and support cost-effective ways for people to work.

IBM Solutions

- [IBM Lotus® and IBM WebSphere® collaboration solutions](#)
- [Unified Communications and Mobility services](#)
- Workforce transformation services
- [IBM Smart Business Desktop Cloud](#)

Connecting people and systems inside and outside the organization

IBM [Smart SOA™](#) brings people, process, information and technology together for cost optimization and agility. It provides the means to pull out reusable business functions from your application portfolio to dramatically increase the alignment and value of IT to the business. Smart SOA makes it possible to:

- Maximize reuse of investments.
- [Establish any-to-any connections.](#)
- Match application function to business needs immediately.
- [Mitigate risk with a sustainable and scalable application foundation.](#)
- [Extend reach of visibility and control across the value chain to your customers and partners and innovate new business models.](#)
- Leverage business data, applications, and services as a shared resource.

Service orientation changes the way we approach and meet the changing needs of the business. We cannot work smarter unless we are able to sense, interpret, adapt, and respond. That is why it is critical that service orientation permeate the organization—providing the basis for working smarter in relation to IT, business processes, and overall business model. For example, service orientation simplifies how we incorporate sensors and actuators, combine multiple disparate solutions for a single view of information, or take advantage of cloud capabilities for elasticity.

By reducing unnecessary redundancy and complexity, we can enable agility to address economic challenges and prepare for the future, and build solutions that enable a dynamic business environment and lower IT maintenance costs.

IBM, a recognized SOA market leader, offers the Smart SOA approach—funneling the “smarts” from more than 8,000 customer engagements into offerings that help you maximize business and IT value:

- [Chart a course forward](#) where you are able to optimize costs while attaining the agility and flexibility needed to thrive in today's economy AND tomorrow's.
- [Increase business and IT alignment.](#)
- Fuel business growth and innovation via reduced IT complexity and cost.

IBM Solutions

- [Smart WebSphere ESB Portfolio \(including DataPower appliances\) and Services](#)
- [WebSphere Transformation Extender Industry Packs](#)
- [IBM Rational® Toolkit for Reuse and Service Enablement](#)
- [WebSphere Service Registry and Repository Advanced Lifecycle Edition](#)
- Industry Solutions and Frameworks
- Business Architecture Services


Quickly adapting to economic realities with an agile business model

By combining dynamic business processes, smarter collaboration, and Smart SOA, you can break through business as usual to create an agile business model in order to:

- Quickly adapt to reflect economic realities.
- Utilize the latest industry expertise.
- Act on critical business insight.
- Restructure teams to align to business objectives.

Business leaders understand that the barrier to better understanding and optimizing their business model is not solely technology-based, a function of industry competitive dynamics, or the result of new business processes. It is a combination of all of these, and an agile business model must address all three dimensions.

You can partner with IBM to understand your current position, in the industry and among your competition, and define and select future opportunities. Developing an agile business model is the only way to not just survive but thrive in this business climate.



IBM has enabled business model transformations around the globe with over 250 proven business model maps across all industries. Leveraging IBM's depth of expertise and breadth of portfolio, you can:

- Identify the strategic components of your business and prioritize them based on the business imperatives and the pain points in order to handle dynamic change.

- Model and connect business processes within and across the enterprise.
- Identify the services, components, flows, information and policies/rules to prioritize and rationalize the service portfolio.

Smart Work in action

We've all seen the footage on the news—a disaster strikes and emergency services respond while lives hang in the balance—a literal life and death situation. Consider the epic challenges that the emergency response team faces: the coordination of people, processes, resources and activities across public, private, nonprofit, and volunteer organizations during or after a crisis situation.

The State of Missouri and its Office of Homeland Security needed to be able to provide emergency response services to 5.8 million citizens, spread out over 68,000 square miles. In handling 14 presidentially declared disasters in less than two years—the need was clear; however, their systems, processes, and collaborative capabilities limited response effectiveness. Working with telephones, radios, paper maps, and colored pushpins, the agencies' resulting response times could be measured in days. For the State of Missouri, the question was: How can we work smarter?

Working with IBM and IBM Business Partner VirtualAgility Inc., the State created the Missouri Emergency Resource Information System (MERIS). MERIS was deployed in the spring of 2008 – and

since that time there have been five disasters in the state. According to Paul Fennewald, coordinator of the Missouri Office of Homeland Security, with the new system in place, “the difference in our ability to manage the response to events was dramatic.” With MERIS, they are able to:

- Track in near real time their available resources—bulldozers, helicopters, police, firefighters, and volunteers.
- Share information instantly across organizations, including the National Guard, the fire marshal's office, law-enforcement agencies, healthcare workers and others.
- Analyze situations and respond in hours, rather than in days, to ensure that the right resources are available at the right places and at the right time.

For the State of Missouri, MERIS integrates IBM collaboration and SOA-enabled software and a broad mix of emergency-response applications to help manage MERIS's business processes to effectively bridge the gaps among multiple organizations. Being flexible, acting on timely insight, and coordinating expertise to work together during a crisis are critical. The MERIS solution enables the State of Missouri and its Office of Homeland Security to work smarter – improving emergency response and saving lives.



Get started working smarter

As you start adopting Smart Work to create a flexible, collaborative work environment, ask yourself:

- Do the organization's leaders think about the enterprise as a flexible system of components that are agile?
- Do you know the critical components for the creation of future value? Are there business models available to detail the components?
- Can you communicate easily and quickly with customers?
- Do you have processes and culture to foster innovation and support change?
- Are you able to find and apply the best expertise to solve business problems? Can you improve efficiency by enabling people to work together more easily?

For more information

To learn more about IBM solutions that can help your organization work smarter, contact your IBM sales representative or IBM Business Partner.

- **Smarter Planet at ibm.com**: Articles, case studies, videos and other materials.
- **Smart Work at ibm.com**

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