

Making Web 2.0 work for you.



Web 2.0: changing the
face of business

Web 2.0 in action: a strategic
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Vision for
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IBM: helping companies make
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Web 2.0: changing the face of business



Companies are changing the way they conduct business. They're becoming less top-down and more bottom-up. They're becoming less controlled and more participative.

This evolution in successful business practices is enabled by advanced Web technologies—social computing, wikis, blogs, enterprise mashups and rich Internet applications (RIAs). Referred to collectively as Web 2.0, these technologies can help you harness the intelligence of your entire enterprise and make it accessible to your employees, customers, partners and suppliers. With Web 2.0, information systems grow organically from within the business rather than from above. Critical information becomes a dynamic and shareable asset that increases in value as global teams grab it, add to it and use it to create highly innovative products and services and responsive business models.

Compared to traditional communication methods, social media capabilities can strengthen relationships and improve business results and encourage the information sharing that both generates novel ideas and accelerates their adoption. Free-flowing information encourages people to contribute and buy in to the cause—making them more invested in the success of projects and in the business as a whole.

Until recently, most technological advances in social media have been focused on bringing individuals together outside any formal organizational context. However, despite the fact that most social networking tools and Web sites were not designed specifically for business use, young employees and some of their innovative, older colleagues are putting these tools to work. According to a survey released last month by Symantec, less than half of workers born after 1980—45 percent—stick to company-issued devices and applications. That's much less than older workers, 69 percent of whom only use work-sanctioned products.¹

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Through online social media—sanctioned or not—business people are finding the information and guidance they need, quickly and with much less effort. Few stop to consider business security, intellectual property concerns or customer privacy issues. However, the dangers are real, and the impact of security breaches can threaten business survival. The challenge is to make sure that the social media tools you provide for Internet-savvy workers also embed the controls required to protect the business.

“Boosting social interactions (along with changes in the nature of work occasioned by earlier IT investments) holds out the promise of dramatically raising organizational effectiveness. ... The failure to consider the impact of social enhancement technology on the performance of the enterprise is a big mistake. A smart implementation of a social environment on the enterprise’s intranet can have a dramatically positive impact on enterprise performance. It’s the next stage in the (technology-driven or technology-enabled) changing nature of work.”²

IBM is at the forefront of putting Web 2.0 technologies to work for businesses. Our aim is to help businesses build environments that enable employees to do their jobs better and faster. The IBM approach to enabling Web 2.0 combines the new technologies with the organizational behaviors that support them. It helps encourage social interactions and relationships within

the context of business activities, while enabling organizations to control content and access to that content to help protect intellectual property and maintain a business focus. To enable new ways of working and innovating across the enterprise, IBM believes three key elements are critical to a successful Web 2.0 approach:



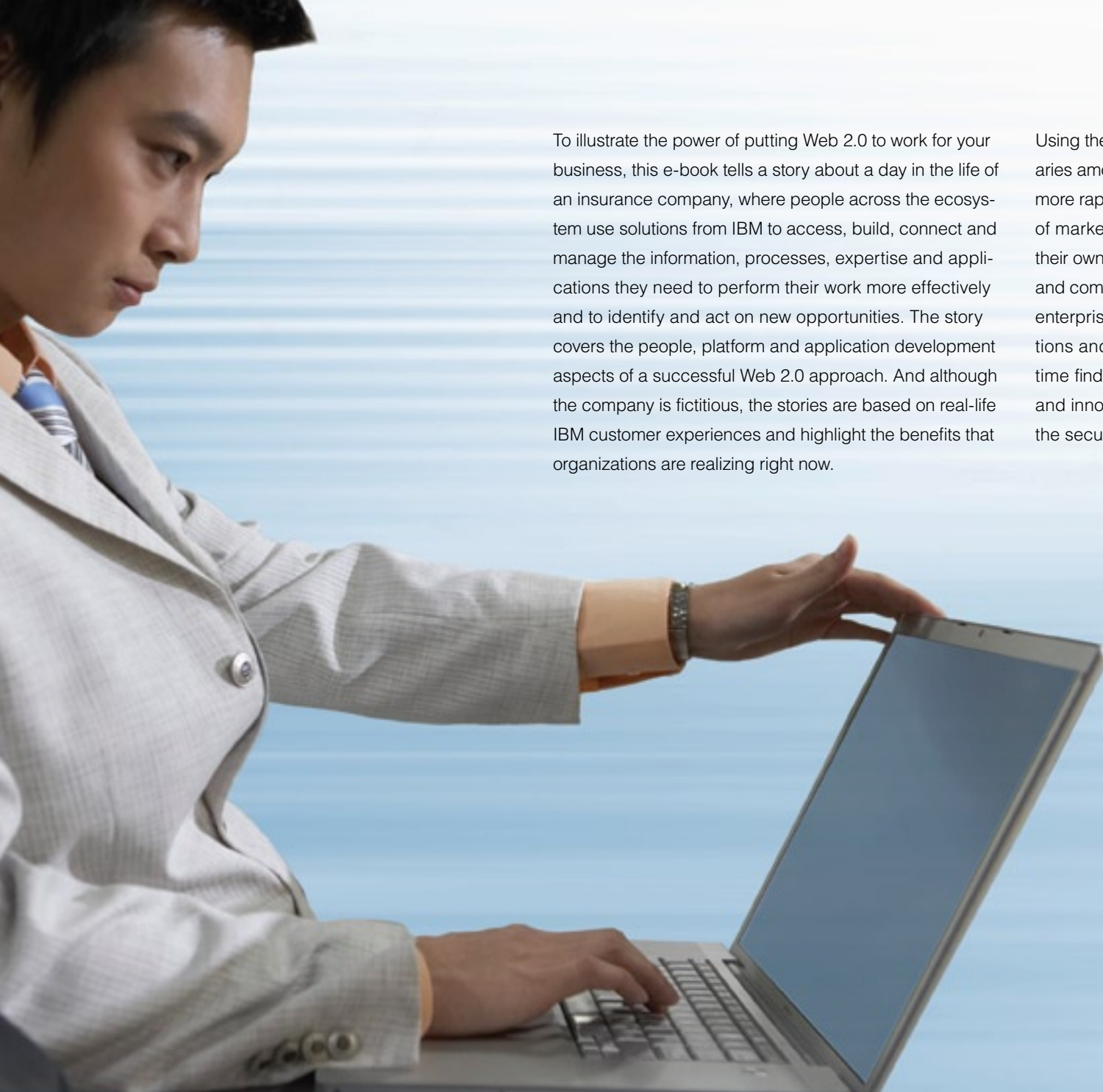
People—An enterprise Web 2.0 environment drives heightened levels of interaction between people and information. By enabling the discovery and leveraging of expertise—and teams to coordinate ad hoc initiatives organically—social computing technology can help you tap the collective knowledge of the organization and drive innovation.



Platform—The World Wide Web as an application delivery platform can help lower costs while capturing all user-created content and value. Internet-based IT capabilities provide economies of scale and low barriers to development. They also promote globally integrated virtual enterprises and value networks while driving more effective use of information.



Application development—Web 2.0 technologies fundamentally change the application development process—helping business and IT collaborate more effectively to create needed solutions faster and cost-effectively. For example, business users can use mashup technology to create views of specific information, such as key performance indicators.



To illustrate the power of putting Web 2.0 to work for your business, this e-book tells a story about a day in the life of an insurance company, where people across the ecosystem use solutions from IBM to access, build, connect and manage the information, processes, expertise and applications they need to perform their work more effectively and to identify and act on new opportunities. The story covers the people, platform and application development aspects of a successful Web 2.0 approach. And although the company is fictitious, the stories are based on real-life IBM customer experiences and highlight the benefits that organizations are realizing right now.

Using the Web as a platform, this company erases boundaries among people inside and outside the enterprise for more rapid response to customer issues and identification of marketplace opportunities. With the ability to create their own applications through dynamically transforming and combining the resources they already have—from enterprise systems and Web sites to desktop applications and personal spreadsheets—people waste no time finding answers. And they can connect, collaborate and innovate with social software that's built to support the security and scalability needs of the business.

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Web 2.0 in action: a strategic focus on customer service

Consider the Peace of Mind Insurance Group (PMIG), a hypothetical multiline property and casualty insurance company headquartered in North America with subsidiary insurance companies in Europe and Asia. Operating from 300 local offices and through a network of 3,500 independent agents in the United States, PMIG has staked its reputation on efficient and responsive client services—a reputation that is becoming more difficult and costly to maintain as the company grows.

Historically, PMIG has focused on the efficiency of back-end systems to continually improve service. Business processes are optimized and client records consolidated. Front-line personnel in the office and on the road have rapid access to all relevant and up-to-date client information. And much of the required processing and documentation for such administrative activities as opening and revising policies and filing claims is automated. It is a matter of pride that PMIG handles every contact with clients quickly and knowledgeably—whether the contact is client- or company-initiated. The company encourages its people to spend the bulk of their time on client interactions—enhancing the relationship capital that sustains the business.





However, PMIG faced two significant challenges to achieving strategic goals. First, the increasing costs of vehicle purchases, gasoline and maintenance were driving up travel expenses for field representatives across the company, as well as creating an unsustainable carbon footprint for PMIG. And second, the explosion of online insurance offerings was making it hard for the company to stay ahead of the competition. PMIG had to find a way to reduce costs while continuing to improve agent-client relationships. And it had to accelerate product innovation.

Hearing about the success IBM has had with Web 2.0 and social networking technologies for addressing these kinds of challenges, PMIG undertook a pilot implementation in its northwestern United States region to test the concept. The initial goals were twofold:

- Help field representatives such as agents and adjusters minimize travel costs and environmental impact as they increase the number of people they can see on any given day.
- Involve both field agents and clients more extensively in the product development process.

PMIG executives set targets for the year following the IBM solution rollout. They wanted to see a 25 percent reduction in travel costs, a 20 percent increase in new policies and services revenues, and a significant decrease in the time required for closing claims. They also set a goal of compressing development time for successful new product offerings by at least 10 percent. So far, results are exceeding expectations.

Web 2.0 in action: boosting productivity with mashups

What is a mashup?

Definition: A mashup is a lightweight Web application created by combining information or capabilities from multiple and often unrelated sources to deliver new functions and insights. Mashups typically “mash” or remix information to create a new feed or a new application—called a widget—that presents content in a single graphical interface.



When Sally Aronson, a customer service agent, arrives for work on Wednesday morning at the PMIG office in Denver, Colorado, she notices a lot of activity. She already knows why. While riding the light rail, Sally read a story on her smart phone about a freight train derailment just outside of Salt Lake City. The train had been carrying freight from at least five companies, all of which were PMIG customers. Because PMIG is using the new solution from IBM, she sits down and begins to quickly assemble the information she needs to react to the situation on her desktop.

Benefit: Mashups provide the nontechnical user with self-service application development by enabling dynamic assembly of situational applications. New applications can be quickly created to solve day-to-day problems through remixing a range of information sources, including enterprise systems, Web sites, software-as-a-service (SaaS) providers, departmental applications and team or personal applications like spreadsheets. They give organizations the agility to seize opportunities and respond quickly to problems through ad hoc applications—without increasing the development burden on the IT department. And mashups can give business users greater insight into solving business challenges and allow them to innovate through collaboration and reuse.

Specifically, Sally wants to monitor activity in the area of the train crash, including weather and any activity happening with the accounts of customers involved in the crash. Sally goes into PMIG's mashup catalog and pulls a prebuilt feed that delivers trusted information from the IBM InfoSphere™ Information Server claims processing application into a widget on a new page. Next, Sally adds a spreadsheet with contact information for each of the claimants to the company catalog, converts it into an RSS feed and adds the feed to the new page. She connects the information from the customer list widget to the appropriate part of the claim form widget, so she can receive the right updates. Finally, she goes to the Internet and pulls a feed from a weather information site that provides updates for the local area. And she does it all quickly, without needing help from IT.

Once her personalized view of the situation is ready, Sally sees that her client, Reliable Logistics, Inc. (RLI), has already submitted an incident report. This isn't great news—because she sees that RLI wants a claims adjuster onsite at its midwestern plant to assess flood damage. She adds a note on her task list to call Stan Wiley, her contact at the company, to complete the claim form for the rail freight loss. On a more positive note, she also sees that the thunderstorms predicted for the area have not materialized, lessening the chance for further damage and complications. Sally also breathes a sigh of relief when she sees that a claims analyst at PMIG headquarters is already evaluating the RLI incident report, knowing she will assign a claims adjuster soon.



Sally's mashup includes information grabbed from a feed in a company spreadsheet, information from a claims processing application and an RSS feed from a weather information Web site mixed and displayed in a way that enables her to easily track the unfolding situation.

Later that morning, Sally accesses the marketing campaign tool to see the day's list of leads that have been assigned to her based on her proximity. Unexpectedly, Stan from RLI is on the list. She's thinking that she'll definitely be talking to him today, preferably in person. Opening the lead, she learns that RLI is planning to open a new plant. With RLI's two outstanding claims, Sally knows she is going to have to do some work to get Stan a competitive rate. She sees that RLI is looking at several sites near Las Vegas. Using the IBM Cognos® 8 Business Intelligence risk-assessment widget on her desktop, Sally executes a quick model of that area in Nevada. The risk assessment model performs a data mashup of flood, brush and storm zones for these locations. She can get this information down to street level using her geocoded mapping application. She notes that there may be a brush fire issue with one of the sites RLI is considering.





Two hours later, Sally is in Stan's office. Before discussing coverage for the pending locations in Nevada, Sally goes over the status of the freight derailment claim, and she and Stan are able to update it with the latest information. Sally then lets Stan know about the higher risk factors for one of the prospective plant sites that could increase insurance premiums. Stan jokes with Sally that RLI could have used this kind of information earlier, before the company bought in Nevada. As it is, the data will be valuable in the final cost-benefit analysis.

In this train derailment scenario, IBM Mashup Center software is helping Sally innovate her work processes on the fly to achieve the client-centered focus that PMIG demands. It provides a lightweight mashup environment for assembling personal, enterprise and Web content into simple, flexible and dynamic applications. Creating a mashup requires no programming experience. If Sally wants to add capabilities to her desktop view, she can

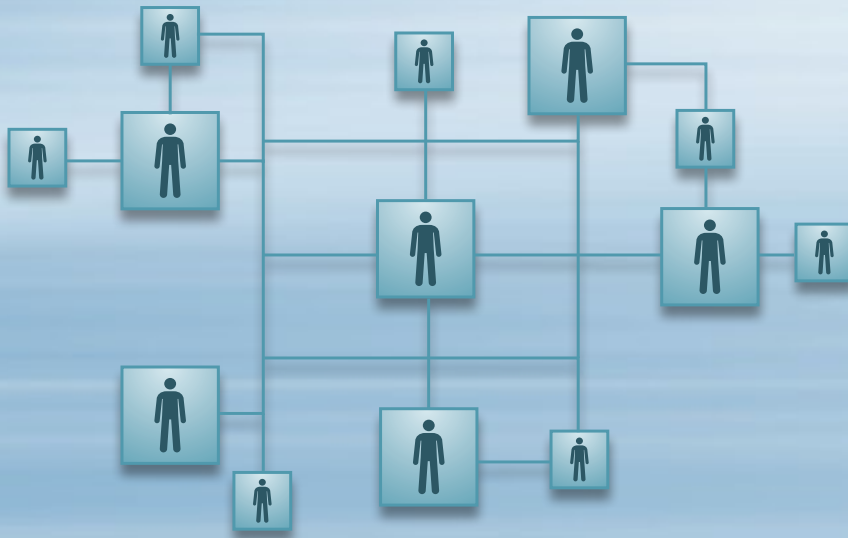
simply select from an IT-approved list of company or external service components with drag-and-drop ease. She and her colleagues can remix content and business tools on the fly—without involvement from IT—based on their specific needs. The components they select have already been created or vetted by IT to help ensure security, stability and compliance.

With the ability to organize and remix enterprise and Web information to support the way they work, PMIG employees can get more done in less time. They have access to current, reliable information when they need it without having to bounce back and forth among multiple applications and pull out and parse data into spreadsheets or other forms in order to make sense of it all. Best of all, once they create mashups that are widely used, they can deploy them across the enterprise with IBM WebSphere® Portal software. And they can spend their time where it does the most good—with clients.

Web 2.0 in action: accelerating innovation with social networking software

What is social networking software?

Definition: Social networking software consists of collaborative tools that are used to build and maintain personal and professional networks. Built using Web 2.0 design principles, this software offers people a variety of ways to interact, such as dynamic directories, online and voice chat, instant messaging (IM), wikis, video, file sharing, blogs and discussion groups.



Benefit: Social networking software helps people locate and connect with an extended network of subject-matter experts. It provides an efficient way to build relationships and share knowledge—even with people you don't know—to gain fresh perspectives on solving problems and meeting new challenges innovatively.

On her way to her next customer call, Sally goes over the conversation with Stan in her mind. She wonders whether there may be a new service PMIG could offer clients and decides to chat with her friend Paul Henley in product development.

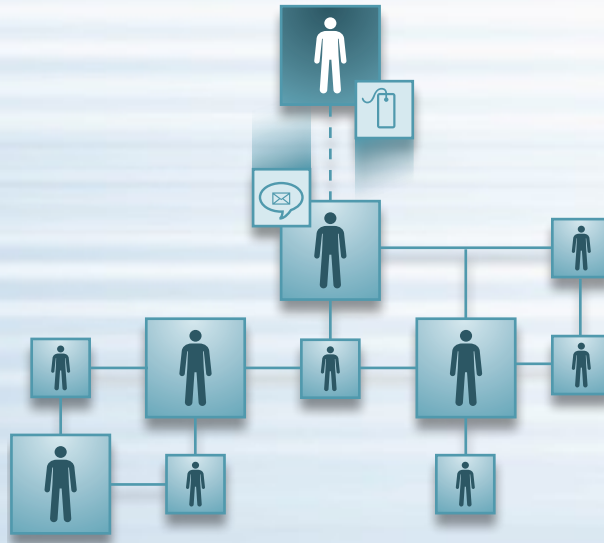
Paul is pleased to hear from Sally. He often receives valuable insights about new business opportunities when he connects with agents, and he knows Sally to be particularly helpful. With PMIG pushing for accelerated product innovation, Paul is always open to suggestions.

Sally relays the gist of her conversation with Stan from RLI. She tells Paul that it got her to thinking: Is there a way that customers could access the map overlays in the PMIG risk-assessment program to help them make decisions about where to locate new facilities? Would this be a viable and profitable idea for a new service?

Paul is intrigued. He accesses profiles in the company directory to find people in the company who might have the knowledge or contacts to help him evaluate the marketability and profitability of offering such a service to clients. When he types in risk-assessment mapping, the program returns a list of ten colleagues from a range of disciplines. He selects Samantha Hollen in marketing at the corporate office and digs into her blog. Surprisingly, he finds that she's been considering the very same product idea. In fact, she appears to be leading a grassroots effort at PMIG to make the idea a reality.

To get more background information, Paul accesses Samantha's bookmarks through the bookmark component of the IBM collaboration software. There he finds a list of the sources Samantha has already researched. He looks for other bookmarks identified with variations of the risk-assessment mapping tag. He realizes that there is an interest in this topic among people across the organization.

Returning to Samantha's blog, he initiates an IM session to convey his interest and find out how he can help. Samantha responds enthusiastically, letting Paul know that she has already assembled a community of purpose that is preparing to take this product idea to the next level—a proposal to management to fund development. She directs him to the team wiki where the group is collaborating on a presentation to sales and marketing executives. She also adds Paul to the team space so he can view to-do lists, add content and become an active member of the team.



Social networking software helps Paul find a group of experts within PMIG and then narrow it down to find the person best suited to help with his project.

In this scenario, IBM Lotus® Connections and IBM Lotus Quickr™ software enable Paul to act on new product ideas more quickly. Within minutes he has found people who share an interest in the concept and can begin building the relationships he needs to help initiate development. By tapping in to a knowledge base of experts from across the business ecosystem, he saves considerable time—avoiding redundant research and evaluation.

Because Lotus collaboration software is built for business, with highly secure networking capabilities, Paul doesn't have to worry about giving away trade secrets as he shares information with colleagues within and even outside the company. Information that was previously qualified by others is now widely available—saving time and reducing redundancy by expanding innovation beyond research and development to make it a collaborative, company-wide experience. Great ideas really can come from practically anywhere.

Not even six weeks later, Paul is involved in rolling out the new risk-assessment mapping service to clients. He e-mails Sally that Stan from RLI has volunteered to beta test the product. Sally is stunned. "No kidding? That's the fastest I've ever seen us deliver any new offering," she responds.



Web 2.0 in action: saving time on information analysis with RIAs

What is an RIA?

Definition: An RIA is a lightweight application that delivers advanced capabilities over the Web to users, providing a highly interactive user experience with a rich graphical interface and responsive performance. RIAs enable the creation of applications that respond to user input. An RIA could be used, for instance, to create a feature that provides a list of possible terms as users type into a field. The list of terms instantly changes as the user types in more letters.

A well-known example of an RIA is Pandora.com, one of several “Internet radio” sites that respond to user input. It asks users what artists they like, plays selections from these artists and then suggests other artists. Users are able to play and purchase music, read artist bios, add more artists, vote on whether they like particular songs, create “stations” and more—all from an interface that resides on their desktops.



Benefit: By employing RIAs, businesses can deliver complex, full-featured applications to users’ desktops without having to install a rich client as may have been required previously. These applications can be far more robust than what would be available through a simple Web interface. And when developers need to add features in response to business needs, they can do so easily. As users access the application, they automatically get the update.

RIAs allow organizations to transfer the processing necessary for the user interface to the Web client but keep the bulk of the data back on the application server. This means that the same context-sensitive tools, content, data and applications people enjoy with a rich client can be accessed through a flexible, highly interactive interface.

PMIG insures a large number of home owners and businesses in California, which has recently experienced a glut of wildfires. Because the fires are erratic and spread rapidly, tracking how many clients are in danger and where they reside has been a constant challenge. While the company can look at a map of the general area affected by the fire, pinpointing clients in danger required several steps in manual processes. For example, people can pull client information by street name or area code and then plot locations on a map, but there is no way to look at the changing situation in realtime.

As luck would have it, PMIG’s CIO, Simon Martinez, learned about RIAs a while back at a technology conference and recognized their potential for helping the business and IT team. Simon knows that RIAs are ideal for tracking time-critical situations like forest fires, so he knows a developer can quickly build a solution that will make it easier for users to pinpoint clients in danger during rapidly changing circumstances.

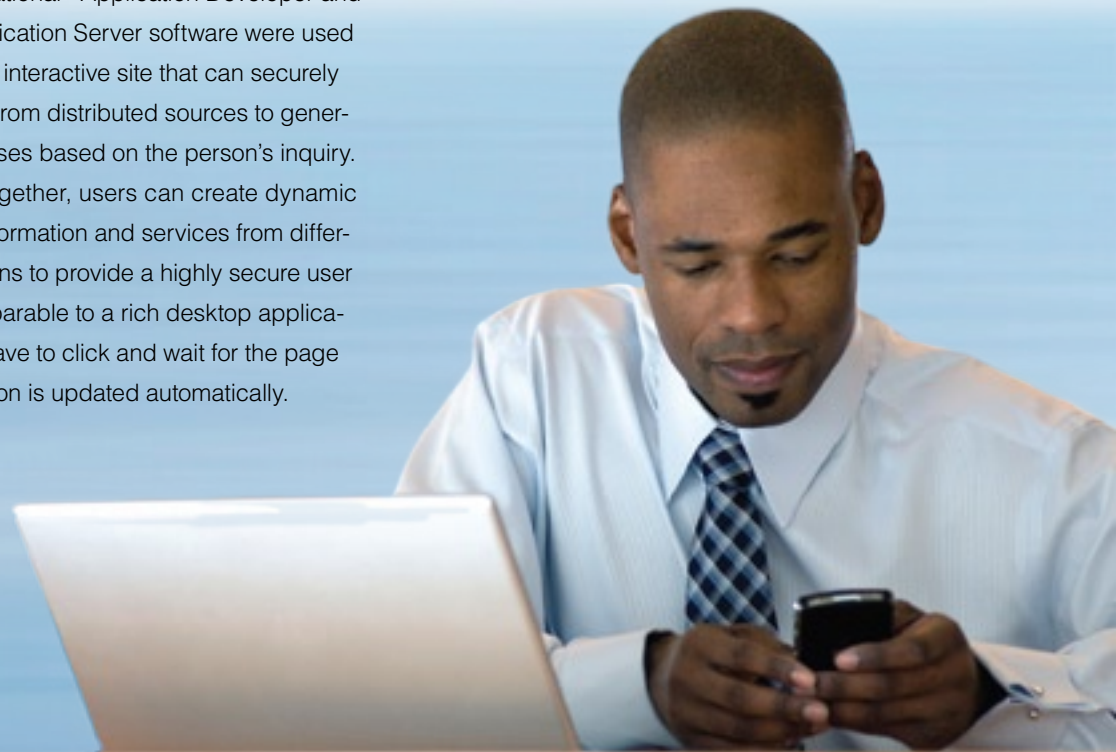
Simon's initial goal is to create an application that can highlight customer locations on a map in near realtime as a user types in a search query. For example, the user could start with a suburb or community name and get the big picture for an area. Then she could get more granular views by entering street names.

Simon explains the need to Tony Roberts, one of his developers, who sets out to create the new RIA. In his development environment, Tony links customer information for at-risk counties from several databases to a detailed California map. Tony creates an equivalent runtime of the RIA so he can test the capabilities and confirm that they meet the project needs on the fly. Because the RIA is located on an application server and not desktops, once the application is ready and approved, rollout is as simple as letting users know where to access it. And because the interface uses a standard search bar, virtually no training is required, so the impact on overall processes is minimal. Moreover, PMIG can easily add incremental improvements to the RIA as they are developed.



PMIG's new RIA enables employees to pinpoint which clients are in danger zones of wildfires in near realtime.

In this scenario, IBM Rational® Application Developer and IBM WebSphere® Application Server software were used to build a dynamic and interactive site that can securely aggregate information from distributed sources to generate appropriate responses based on the person's inquiry. With these products together, users can create dynamic pages that integrate information and services from different sources and domains to provide a highly secure user experience that's comparable to a rich desktop application. And users don't have to click and wait for the page to refresh; the information is updated automatically.



Vision for the future

With results from use of Web 2.0 technologies exceeding expectations, PMIG is ready to accelerate adoption across the organization. Not only that, but the company also wants to begin the second phase of the initiative immediately—extending social networking capabilities to selected business partners and customers. Once again, PMIG engages IBM to help identify the areas where it can realize the greatest value from connecting with the larger business ecosystem.

Having seen the potential of RIAs with the wildfire tracking solution, PMIG is eager to deploy RIAs for other business-critical challenges. As a result, the company has volunteered to contribute to and beta test some of the new RIA applications that IBM is investigating. IBM Research and Development is exploring three areas of closely related technologies:

- **Semantic inquiry interpretation** allows users to express more complex analytical questions as easily as they express keyword-based queries.
- **Progressive information analytics** allows users to progressively gather information from distributed sources when they do not know what the next question will be until they see the results generated from their current inquiry.
- **Smart visual analytics** allows users to combine and pivot graphical elements to provide the right view of the right data at the right time.

For its next RIA project, PMIG wants to create a differentiating user experience for new healthcare policy prospects. Simon Martinez is planning to use IBM WebSphere Commerce Server and RIA technology to develop a solution that provides users with dynamic responses to policy inquiries. The site will use a simple form that updates policy options and presents key details in a rich visual format to users as they type. So instead of having to scroll through long lists in drop-down boxes and waiting for pages to refresh, users can simply type in their personal details and immediately see their coverage types and options. They can even click on visual elements, such as cost comparisons between policies, and ask questions, such as, “How can I reduce my premium?” The solution should make the experience of shopping for a new policy much faster and less tedious. Given the complex nature of the new

RIA—and the sensitive nature of the information people are submitting—PMIG also plans to deploy IBM Rational AppScan® software. Using AppScan software will help PMIG better protect customer data and manage regulatory and standards compliance in its environment by automatically scanning for common application vulnerabilities.

Paul has also been selected by PMIG as one of the members of the team that will be participating in the shared IBM product development initiatives. Because the PMIG team will be tapping in to the IBM social networking ecosystem as part of the effort, Paul looks forward to experiencing firsthand how Web 2.0 technologies can be used effectively to enable customer participation in the development process. He plans to use what he learns to help PMIG get its customers more engaged in product design.



IBM: helping companies make the transition to a Web 2.0 culture

Web 2.0 technologies can help companies compete globally in new ways, but they still have to be implemented as cost-effectively, reliably and securely as the rest of the IT infrastructure. IBM has already helped a host of companies take advantage of the full range of Web 2.0 technologies and the organizational changes that leverage these investments.

Web 2.0 is not just about software and hardware. Social media applied to business involves human interactions such as listening, cultivating and participating in the continuous dialogue among customers, partners and stakeholders about issues relevant to the business.

IBM provides Web 2.0 solutions and expertise to help organizations grow as they move toward empowering employees with the tools they need to communicate, collaborate and work more efficiently and effectively. We have the insight and experience to assist you in successfully implementing the underlying technologies and making the transition to a Web 2.0 culture.

For more information

To learn more about how IBM Web 2.0 technologies and communities can help you harness social networking for business benefit, visit:

ibm.com/web20



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¹ *Computerworld*, "Young workers more likely to break corporate Web apps rules," June 6, 2008.

² Gartner, *Social Sciences Will Become More Important Than IT to IT Departments*, Tom Austin, Gartner RAS Core Research Note GOO144687, April 26, 2007.

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