



**Collaboration without boundaries:
enabling innovation, changing
the workplace.**

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Introduction: the who, what, why of collaboration

Remember bound volumes of reports in the company library? Secretaries who took the boss's dictation? And smart people who shut their office doors and emerged with full-blown ideas for business? Depending on where you are in your career, these may be real but ancient history. Or they may be laughable absurdities. You're probably finding that exclusivity, hierarchy and solitude are already being replaced by radically different ways of collaborative working.

The signs are unmistakable. People increasingly work in places other than their offices—and on teams that draw expertise from virtually anywhere in the world. They access applications, data and subject matter experts live and across networks—and others tap into the same information. They employ whatever end-user device is right for the job to improve productivity—while enhancing the work experience for themselves and their employees. Today, collaboration is the name of the game.

In today's competitive environment, sharing information and expertise can be critical in driving both individual and organizational success. From forward-thinking business leaders to younger workers who have grown up in the Web-based world, working collaboratively is now business as usual.

How does collaboration yield results? By fostering innovation. In fact, true innovation is virtually impossible without collaboration. And innovation is indispensable to success. Business leaders recognize this. In IBM's recent CEO study, more than three quarters of the 765 chief executive officers queried cited collaboration and partnering as very important to their innovation efforts.¹

This white paper discusses the changing face of collaboration and the ways in which the new collaboration can benefit business. It points out that smart businesses already are looking for ways to connect communities not only of employees but also of customers, partners and others "outside the firewall" so they can tap into both internal and external knowledge and use that knowledge to accelerate innovation.

Highlights

Smart businesses are preparing for collaborative innovation by connecting employees, partners, customers and others.

To make these changes possible, companies must make data available to more people in the organization; change the corporate culture to one of collaboration and trust; and implement tools to harness collective knowledge, experience and communities. If companies are successful in these efforts, they can unleash a world of new innovators. They can capitalize on the way many workers—including the next generation of business leaders—already connect. They can prepare themselves for collaborative innovation and the business success that collaboration makes possible.

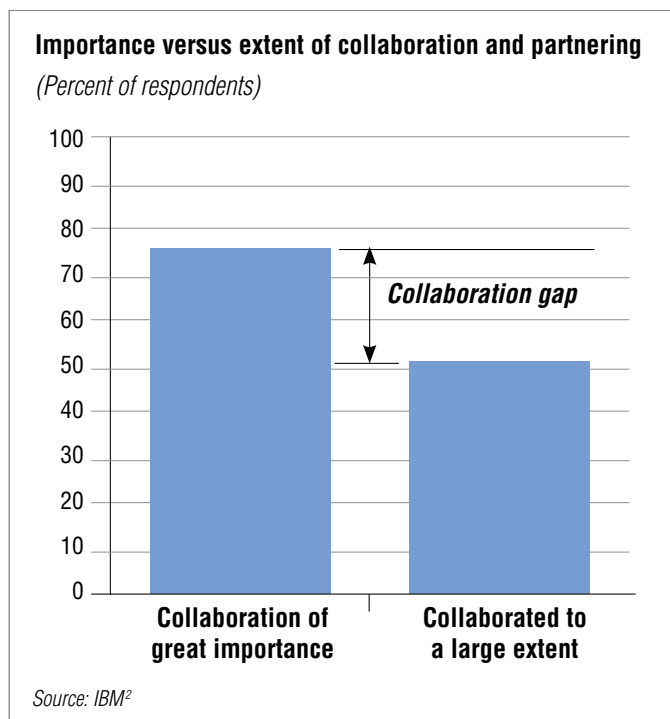


Figure 1
Approximately 75 percent of CEOs say that collaboration is very important to their innovation efforts, but only a little more than half say they practice collaboration to a large extent—leaving significant room for increased collaboration in the future.

Trends already have begun to change the way we collaborate

A recent IBM study pinpointed trends that CIOs believe will have the most business impact in 2010. Among these are global integration, the participatory Internet, changing workforce demographics, the rise of software as a service, the virtualization of data and devices, and the increasing simplicity of technology’s design and use.³

Highlights

As the Internet has grown, new communication and collaboration techniques have rapidly increased.

Social networking, Web conferencing and instant messaging have rapidly grown to huge proportions, enabling widespread business collaboration.

Each of these trends has a role in increased collaboration. And each is already well underway with existing collaboration technologies. Consider, for example, the global integration made possible by the Internet. Between 2000 and 2007, Internet use in North America grew to reach 70.9 percent of the population, the world's greatest Internet penetration. The next greatest penetration occurred in Australia, New Zealand and the South Pacific Islands, where the Internet reached 57.3 percent of people, and in Europe, where the Internet reached 42.9 percent.⁴

Such widespread use has bred familiarity and comfort with the medium—for both individuals and businesses. Social networking has expanded rapidly worldwide. For example, the number of users at Facebook.com grew by 270 percent in just one year, from June 2006 to June 2007. The number of MySpace.com users also grew by 72 percent in that same time frame.⁵ According to a recent study of businesses, use of Web conferencing also has more than doubled in a year. Its increase from a 32 percent to 79 percent adoption rate makes it, according to the study, “the top IP-based real-time collaborative application in use at companies.”⁶

The growth of tools such as social networking Web sites and Web conferencing is a clear indicator not only of the growth but also of the changing nature of collaboration. Gartner predicts that “by 2010, the average salaried worker will actively participate in at least five different ad hoc teams simultaneously.” Gartner further states that “by 2011, social networking and social interaction will be more popular than team collaboration among enterprise users.”⁷

Highlights

Most younger workers are familiar with social networking tools and have embraced the Internet's move from publishing to commerce to user engagement.

At the same time, the number of communications tools designed for business use is also increasing. According to IDC, in 2003 there were 95 million instant messaging (IM) accounts used in businesses worldwide – but 75 million of those were business workers using free, consumer-oriented services. Estimates are that by 2011 this situation will flip, and while business use of IM will have risen to nearly 425 million accounts, more than 250 million of those users will be relying on applications designed for business use.⁸

This increase in tools and their growing intensity of use point to the virtual inevitability of these new ways of sharing. Younger workers today have grown up using the Web and are most likely familiar with social networking tools that enable people to find and connect to others with similar interests, related jobs, or shared friends and colleagues. These people may already have been global collaborators at school or at home. They embrace technology more readily than many of their predecessors. And they are generally more mobile, contributing to a rapid growth in the numbers of people working outside conventional office settings. In 2006, 57 percent of organizations said they operated a virtual workplace. By 2007, that number had increased to 83 percent.⁹

Many of these workers have embraced the Internet's move from publishing to commerce to user engagement – the new state popularly known as Web 2.0. And many realized early that the Web could be an increasingly effective way for users to get the right information at the right time, as often from each other as from published data.

Highlights

Most human resources officers admit their companies could be more adaptable.

Companies that can adapt to changing business conditions share recognizable traits.

But changing demographics of the workforce bring still more demands. These same highly collaborative workers are likely to be harder to attract and retain than ever—in part because of their technology experience and their insistence on using it. They are likely to expect a set of communications and collaboration tools in the workplace that are equivalent to the social networking tools, search engines, e-mail capacity or other capabilities they have at home.

New concepts of information use and sharing will be necessary

Despite the need for collaborative innovation, not every company appears to be on track for change. Recent interviews with more than 400 worldwide human resources executives that were designed to discover how organizations are transforming their workforces to compete more effectively in business reveal, for example, that only 14 percent of companies believe that their workforce is very capable of adapting to change, and only 39 percent state that workforce strategy influences business strategy. Companies that say their workforce can adapt to change share three key traits: the ability to predict future skill needs, locate experts and collaborate effectively across the organization.¹⁰

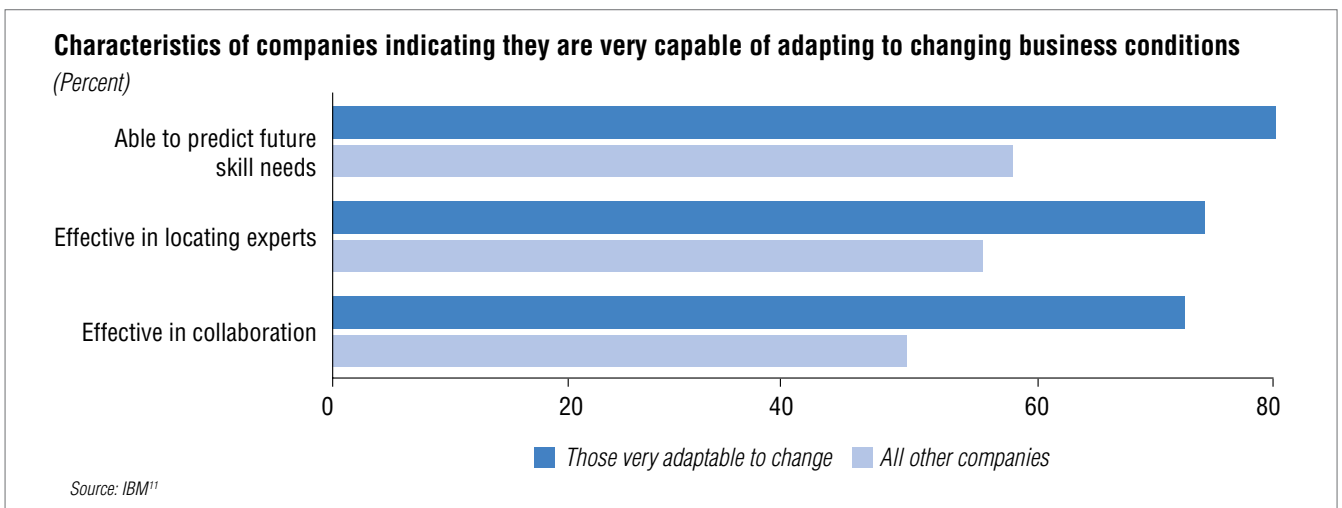


Figure 2
The ability to locate and tap the knowledge of experts and the ability to effectively collaborate have been found to be hallmarks of organizations that are adaptable to change.

Highlights

Many people are thinking differently today about how they work and how they use technology to support their work.

The evolution of the computer desktop is an indicator of the ways in which collaboration and communication are changing.

Yet while many agree that change is necessary – particularly business managers and human resources executives who deal in functional processes and corporate culture – some CIOs have yet to apply technology to make change happen.

The CIO’s task may be complicated by differences in the ways older and younger workers respond to aspects of corporate life, including training, learning style, communication style, decision making, the giving or receiving of feedback, and level of comfort in using technology. But preparing to smoothly transition a company to the next generation over time is important to most businesses. And it already is happening – people are thinking differently about how they work and how they use technology to support their work.

The evolution in how individuals and businesses work becomes tangible in how workers’ computer desktops are changing. Today’s desktop is likely to contain older and perhaps outdated tools that limit the user’s mobility and access to information. But there are newer and better ways to create and share content. The emerging desktop will include simple, hosted tools that integrate information by activities and feeds, enable ready connections with peers and customers, and provide mobility and accessibility for a range of functions. Non-PC-based forms of communications – especially portable devices such as cell phones – will provide still more ways to connect for pervasive, “anywhere” collaboration.

Highlights

Collaboration is changing from private to public conversations where others add input to a person's knowledge.

New ways of working will extend collaboration to create innovation

Many companies want to innovate—but not all understand the importance of collaboration to making innovation possible. Many are hobbled by old concepts of collaboration that can slow their success. People in the company may, for example, consider collaboration to be extra work. But to today's innovative worker, collaboration is what work is all about. In the old way of thinking, employees make themselves valuable through what they know. But in the new way, people make themselves valuable by seeking opportunities to work with others and tapping into the expertise that others possess.

In the old way, content is owned and protected. In the new way, content is developed through participation; it is fluid, contextual and leveraged to create opportunities through ongoing collaboration. In the old way, directories of people provide static contact information. In the new way, dynamic profiles reflect what people do, with whom and how well they do it.

As collaboration evolves, it becomes more fluid, moving from private conversations to public conversations—from telephone, e-mail and instant messaging, for example, to shared bookmarks, wikis and blogs. Collaboration and its tools can be seen as a virtual office, where others visit and add input to a person's knowledge. Information sharing of this type is already happening in popular consumer-oriented social networking Web sites and online services for sharing photos and videos. Enterprise-enabled equivalents also are available that allow workers to move smoothly from voice to instant text to a video Web conference or other application, creating social networking capabilities in the business environment.

Highlights

In people-focused collaboration, information is made available to a group, enabling work that is more open, faster and more cost-effective.

The shift from a document-focused work style to a people-focused work style is an important step in creating environments that foster innovation. The document-focused style, which connects systems and data, too often ends up producing content for its own sake. But the people-focused style, which connects people and ideas, taps people for knowledge and insight in pursuit of an activity in which content is only one part. In the new collaboration, information is made available to a wider group of people who work together openly, quickly and more cost-effectively. Finding and connecting with subject matter experts are critical steps to the success of collaboration.

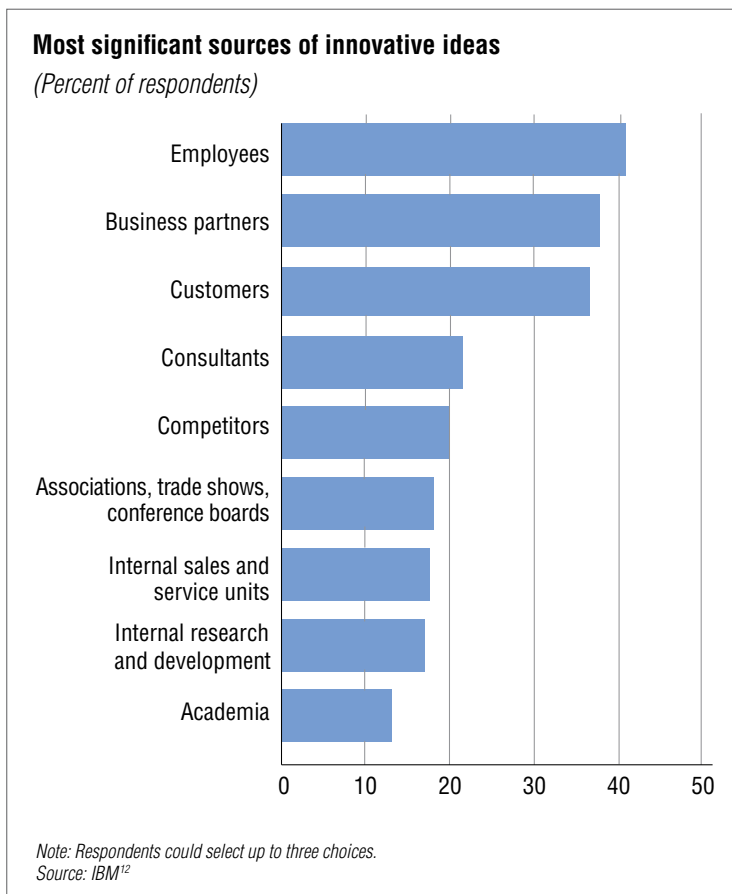


Figure 3
Organizations that have been successful with innovation have found that innovative ideas come from a variety of sources—and from collaboration among those sources.

Highlights

In tomorrow's collaboration, the group will be able to operate as one, creating new relationships with new roles and interactions.

Great ideas can come from practically anywhere as the company's structure and workforce roles are constantly emerging and recombining.

These new ways of working can empower people within and beyond your company

A company is a group of individuals. No one knows what everyone else knows. But the new collaboration can help them tap each other's knowledge and capabilities in new ways. The new collaboration can provide a platform for helping the many operate as one because each person can be only a step away from the knowledge that other people have.

Consequently, tapping knowledge and capabilities can create new relationships. And new relationships can create a new kind of company with new roles and interactions. In older-style companies, for example, most value is created in-house by employees, and contributions often are limited to departments dedicated to research and development. In newer-style companies, people inside and outside the company have a voice, and much value is created together with clients, partners, vendors, alumni and other stakeholders. Great ideas can come from practically anywhere – inside or outside, nearby or around the world. It's already fairly easy to transcend physical and geographic borders. In the evolving organization, borders will virtually disappear.

In the older-style organization, the worker's career is tied not only to achievements and reputation but to the organizational hierarchy as well. In the new style, reputation and achievements reach a broader audience than immediate colleagues and have greater potential to enhance or hinder the ability to perform. In the old style, the company's structure is defined and roles are specified. In the new style, the company's structure and workforce roles are constantly emerging and recombining. The sense of common endeavor – of activities driven by shared interests, goals and values – is likely to become more important than a formalized structure under which endeavors are pursued.

With new styles of collaboration in place, companies can be positioned for solid business benefits because they can harness the innovative power of shared knowledge. Companies can improve service to customers, partners and other stakeholders because they can not only communicate more readily, but they can also work together to solve common problems and meet common needs.

Highlights

Collaboration can set the stage for profitable growth, and unified communications can lay the groundwork for collaborative connections.

New tools can help users better express themselves, find like-minded communities and make the Web a platform for work.

They can enhance employee satisfaction, retention and productivity because they can improve employees' ability to connect to information and each other virtually anywhere, anytime. They can find new and better ways to foster leadership and motivate global talent.

Ultimately, companies can use collaboration to create innovative processes, products or services that differentiate the company from the competition – and set the stage for profitable growth.

Technologies in place today are the first step of the journey

In recent years, many companies have made the move toward network convergence, Internet Protocol (IP) telephony and unified communications. This is an important first step toward innovative collaboration, for just as an infrastructure of roads and utilities connects a city, the digital infrastructure of unified communications lays the necessary groundwork for collaborative connections. Now the time has come to use this digital infrastructure for connections that work virtually anywhere, anytime, over just about any device.

The technological capabilities of unified communications – including audio conferencing; instant messaging; click to call; presence awareness to determine a person's availability to work with you; and softphones to make software-based telephone calls over the Internet from laptops, desktops or handheld devices – enable companies to enhance the effectiveness of communications, improve the efficiency and productivity of the organization, and create flexible and innovative processes.

Then, with unified communications in place, it can be easier for companies to see more possibilities for collaboration. New tools can help users express themselves and assist them in finding like-minded communities. These tools can also make the Web a platform for work – in the same way that UNIX® and Microsoft® Windows® technologies support applications and data for work.

Highlights

Open source and open standards can be keys to creating tools for collaboration across companies, partners, customers and suppliers.

Ultimately, how collaborative capabilities function will virtually disappear because collaboration is about people, not tools.

What's more, the increasing importance of open source code and open standards can help drive increased collaboration and faster innovation.

With open source, developers can build on the work of others, implementing publicly available specifications and leveraging previous thinking in the creation of their own solutions. The work that has gone before makes the new work stronger—and the new work can form building blocks for other developers' later work. In the open source community, a strong commitment to sharing work and giving to others—to collaborating—already exists.

With open standards, similar benefits can accrue to the end user because products are more interoperable across companies and their partners, customers and suppliers. The ability to create documents in a format that multiple applications can read only encourages sharing by making information and knowledge more available. The Web today already has moved in this direction to become a platform where information and data are easily shared, rather than being fiercely protected.

Taken together, participatory capabilities can provide businesses with user-driven innovation, simpler and more productive solutions, integration of tasks, reduced cost and higher employee satisfaction. And ultimately, the lines between capabilities will begin to disappear. How they function will be virtually transparent to both users and IT because collaboration is about people and processes, not merely tools. Capabilities will not appear as different products; instead, applications will be hubs for activities, and users typically will not know which tools they are activating.

This is just the beginning—New tools will be still more effective

The new collaboration will be built on technologies that make sharing knowledge pervasive. And it will work through a single infrastructure—sometimes with new technologies but often with capabilities already available in the organization.

Highlights

Security will always be a concern—but business applications already are positioned to play a significant role in protecting data.

Tagging will enable the creation of repositories of popular information.

Mashups will enable users to assemble components developed by others into a temporary application.

Portals will be designed to provide information and access that a person in a specific role needs to get the job done fast and right, and services will share everyday content via personal and team workspaces. Capabilities now found in instant messaging applications, such as messaging and connections to back-end data sources, are expected to be embedded in business applications to facilitate information sharing. Emerging social networking and participatory Web applications will tie communities together so people can create their own connections—and even invent new ways of working together.

Because collaboration means people contacting and sharing information with people, security and identity management will be essential. Businesses will have to ensure that shared knowledge and information stay within the enterprise. And because more than names and titles are necessary to determine true expertise, tools will be necessary for recording and conveying a person's reputation for performance.

Enterprise software, with its security and governance features, can play a significant role in protecting information. For without enterprise-ready solutions in place, employees accustomed to using publicly available social software may use public sites for collaboration and communication—potentially endangering the security of company data or intellectual property.

But already, new tools and technologies for effective collaboration are appearing. Tagging, for example, lets people assign one-word descriptors—much like personalized keywords—to bookmarks to facilitate organizing and locating personal data. These tags can be made available to others so they can create repositories of popular information. And “tag clouds” can be created that graphically show which tags are most popular. In common representations, the tags used by the most people appear in larger fonts, with the less popular tags in smaller fonts.

“Mashup” applications will provide tools that allow users to combine data and information from multiple sources into a format that meets the user's style preference, interests and needs. Creating a mashup requires no programming experience. Instead, a user can assemble components developed by others into a temporary application—for example, a merging of addresses with maps—find and use the necessary information, and delete the application when finished.

Highlights

Directories will show relationships and help build reputations in fields of expertise.

Enterprise-ready equivalents of consumer-based collaboration tools can deliver greater innovation and business value.

Tags, blogs, external information or other tools can be used to populate employee profiles in organizational directories in order to show relationships with colleagues and teams and to build a reputation in a selected field of expertise.

Implications: Smart companies will get started today

With so much activity already occurring in collaboration and communication, the company that does not move toward unifying communications and collaboration capabilities in an open-standards environment may lose significant business advantages. It may lose critical talent—and the ability to attract talented employees from the emerging workforce. It may reduce the speed and scope of its ability to innovate. It may lose credibility with clients. It may lose business to others with greater innovation and openness. It may be unable to capture growth in new marketplace segments. It almost certainly will lose efficiencies—and may actually increase its cost of doing business.

But by applying the innovation made possible by the enterprise-ready equivalents of consumer-based collaboration tools, customization and sharing of information, the enterprise can achieve business advantage. Employees can work nimbly with information and experts at their fingertips—seamlessly linking to a blog, sharing their computer screen via a collaboration client, or starting a multiparty Web conference with audio and video—to build and enhance insight and knowledge. It can enhance individual and company reputations. It can integrate collaboration into creating service offerings and products. It can more effectively engage and extend business processes.

New and emerging collaboration tools can give user communities a new way of working—and build a new kind of enterprise. These tools can deliver greater innovation and business value today. And they can build a base of knowledge and comfort that can become a springboard to greater capability and utility tomorrow.

Highlights

Tools that enable people, teams and communities to work together can build innovation through collaboration and communication.

A partner with a track record of success can help individuals and companies build and maintain productive business relationships.

Why IBM?

IBM knows how to help companies work together because IBM is solidly on the path to its own environment of innovative collaboration. IBM maintains one of the largest unified communications networks in the world and has used this integration of voice, video and data to enhance employee productivity, empower remote workers and reduce communication costs. The IBM Unified Communications and Collaboration (UC²[™]) strategy – available to companies worldwide – enables people, teams and communities to work together in a rich, integrated multimedia experience. IBM has deepened its commitment to meeting unified communications needs with an investment in early 2008 of more than US\$1 billion over the next three years to provide business solutions for this rapidly growing communications segment.

IBM's own intranet directory captures and shares employee expertise – and users of IBM Lotus[®] Connections software now can add that ability to share to their own deployments. An internal tagging system creates tag clouds for sharing bookmarks across the company. External initiatives help clients and IBM Business Partners participate in connected communities. And IBM's online idea generation and development events, called "jams," prompt global collaboration to identify and refine ideas. A recent IBM jam attracted more than 150,000 people – including not only IBM employees but also IBM alumni, shareholders, Business Partners, clients, friends and family – from 104 countries to share and explore new ideas in technology.

Collaboration capabilities also come from solutions such as the IBM Lotus Sametime[®] family of software, from messaging solutions built on IBM Lotus Domino[®] software, from IBM Lotus Quickr[™] team collaboration software and from messaging platforms that integrate with Lotus Sametime software.

Lotus Sametime software, in fact, has rapidly grown from an instant messaging application to a unified communications and collaboration platform. Its capabilities have grown to include Voice over IP (VoIP) telephony and the abilities to open mailed documents, integrate with presence awareness capabilities, and retrieve and play voice messages – in essence, unifying communications and collaboration to simplify how people work.



Additionally, IBM Global Technology Services offers a portfolio of services designed to help companies define, integrate and implement collaboration solutions by speeding time to value and improving project success. With worldwide service and support capabilities in more than 160 countries, IBM offers deep expertise in helping clients around the world create more efficient and collaborative work environments that can positively affect employee satisfaction and boost the bottom line.

IBM's approach is based on more than 20 years of experience in building security-rich, integrated collaboration solutions – and a long-held commitment to supporting open source and open standards. Backed by IBM's proven track record in delivering results for thousands of collaborative organizations worldwide, IBM solutions can be mixed and matched and customized to each user's preferred working style. So people can communicate and collaborate using familiar formats and methods and, ultimately, so they can build and maintain more productive, long-term business relationships.

For more information

For more information about services that support Lotus and IBM WebSphere® Portal products, visit:

ibm.com/software/lotus/services

To learn more about how IBM can help your business enhance its collaborative capabilities, please contact your IBM representative or IBM Business Partner, or visit:

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06-08
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