Tapping the collaborative intelligence of your business network White paper $\mbox{April } 2007$



Innovative collaboration to advance your business.

Contents

- 2 Expanding the breadth and depth of collaboration for greater efficiency and innovation
- 3 Trends accelerating adoption of collaborative technologies
- 4 The challenge of adding new collaborative capabilities to what you already have
- 5 IBM: helping to unify access to ideas, expertise and information
- 6 Improve productivity with access to actionable information
- 8 Enhance team collaboration through Web-based team spaces
- 9 Promote community knowledge discovery and information sharing with social networking
- 10 Increase your return on investment by leveraging what you have
- 12 Conclusion

Expanding the breadth and depth of collaboration for greater efficiency and innovation

The rapid pace of business today demands a new approach to knowledge sharing and collaboration. People not only need simple access to information, but must also be able to connect with the right subject matter experts at the right time.

The key to unlocking this performance potential is to tap into the power of communities that drive business success. Extending collaboration across and outside the organization enables your employees to share information and ideas with peers, suppliers, partners and customers, and put this knowledge to work in the context of their daily business activities. Relationships matter—particularly for the knowledge-intensive activities that make organizations unique. Knowing which individuals have the required expertise and having the ability to access them when needed make it far easier for newcomers to rapidly learn job basics and for experienced people to engage in innovative problem solving. Given the increasingly dispersed, project-based work environments that are characteristic of companies today, it is important to help people become better connected—with one another and with the information and applications they need—so your organization can benefit from their expertise more quickly.

IBM is at the forefront of advancing and unifying existing communications and collaborative technologies to enhance individual productivity and to establish team innovation—all while enabling users to work the way they want. This white paper highlights the trends accelerating convergence of these technologies, the inherent challenges for IT and how IBM is uniquely positioned to help organizations harness collective knowledge for business benefit.

As organizations become increasingly dynamic and distributed, managing contacts, knowledge and external communication requires greater flexibility.

New Web 2.0 technologies simplify online collaboration and communication, while providing a foundation for more productive work environments.

Trends accelerating adoption of collaborative technologies

Globalization is changing the dynamics of critical business relationships by accelerating the transition to virtual work. Organizations are coming unglued—ad hoc workgroups and communities are constantly forming and operating in more locations over wider geographic areas and across different countries and companies. People are engaged in project-based work with an ever changing and increasing circle of colleagues, customers and partners, many of whom they have never met.

Fluid, dispersed organizations

With reorganizations, acquisitions and mergers, it's easy to lose contact with knowledgeable colleagues. It becomes a challenge to ramp up for new assignments and adjust to broader organizational boundaries. And partnerships and outsourcing make these boundaries more porous. People move in and out of project teams that are brought together to address urgent business issues and disbanded upon project completion. Businesses benefit by being able to make optimal use of key resources and increase operational flexibility. People benefit with new opportunities for growth—but only if they have what they need to do their jobs effectively.

New Internet technologies and savvy users

Technological advances—often referred to as Web 2.0—are simplifying online collaboration and communication. These advances are increasing productivity by helping people to more easily capture, share and reuse work practices (such as project workflows) and link them to the widest possible range of supporting services (for example, instant messaging, Web conferencing and tools for team collaboration). This approach provides the foundation for more productive

work environments that users can incrementally adapt and refine as their needs evolve. And, with people who have grown up using the Internet now entering the workforce, organizations have a potential employee base that is both proficient with Web tools and also expects to use them on the job. Companies must be prepared to support the decentralized IT architectures that enable people to more easily exploit existing and emerging Web services in their daily business activities.

The challenge of adding new collaborative capabilities to what you already have

In most organizations, people already have access to a range of tools to increase productivity, communication and collaboration—including enterprise applications, content management tools, shared work environments, e-mail, phone mail, Web conferences and instant messages. What they don't have is an easy way to organize and manage the information related to any particular activity.

Dispersed content sources and system redundancies

Organizations require easier ways to manage information related to particular activities, but adding new tools can increase complexity and redundancy.

Relevant content is scattered across a proliferation of technologies—not all of which are managed by IT. Instead of increasing productivity, adding tools and systems can contribute to information overload. As more user-interface destinations are created to help organize the work of different processes, it becomes harder for people to quickly find what they need. It's not uncommon for an employee to have multiple applications open on the desktop just to complete a single task. In addition, there is redundancy among systems. For example, a team member may receive multiple messages associated with the same event through e-mail, voicemail and fax.

Ad hoc and incremental adoption of disparate, poorly integrated collaborative tools can lead to costly security and compliance issues that threaten system-wide availability.

IBM offers collaborative solutions that enhance how people connect and communicate and that foster high-quality information sharing according to people's individual working styles.

Security and system availability issues

Security is a critical issue with knowledge sharing. Collaborative tools are easily available via the Internet, and an increasing number of people are comfortable with downloading and using them. And departments purchase point solutions. When locally adopted, such disjointed and duplicate software can create noncompliance issues with an organization's security, retention and auditability policies. Once entrenched, these solutions can be costly to displace, influencing central IT policies and system architectures and making it difficult for IT to enforce security mandates or manage system-wide information availability.

IBM: helping to unify access to ideas, expertise and information

IBM collaborative solutions can connect people inside and outside an organization. Capabilities to help people work smarter and faster include e-mail, calendar and group scheduling, instant messaging, advanced voice and Web conferencing, application authoring, workflow, activity-centric team work environments and integrated Internet Protocol (IP) telephony. For more rapid discovery and sharing of knowledge, IBM offers social computing capabilities such as social bookmarking (called Dogear), profiles and communities, as well as team-based collaborative tools that leverage a rich set of content and team services like wikis and team Web logs (blogs). Because the IBM collaborative platform is built on open standards, you're able to mix and match capacities out of the box or easily customize them, adding social network capabilities to existing Web pages to address a variety of user needs and preferred working styles.

It's all about enabling people to work the way they want with powerful collaborative tools at their fingertips—while building upon your existing IT investments.

Collaborative solutions from IBM allow you to deliver e-mail, calendar, contact management and instant messaging to users within a meaningful context.

Improve productivity with access to actionable information

The IBM portfolio of collaborative solutions helps simplify people's access to each other and to the information and applications they need to use, within the context of their current activities. Starting with e-mail in-boxes, you're able to effectively address the universal challenge of information overload to improve responsiveness and increase the accuracy and quality of work.

Enhanced user experience and embedded real-time collaboration

People will not take full advantage of collaborative tools unless they are made available in a readily understandable way that reflects prevailing work habits. The core IBM e-mail, calendar, contact management and instant messaging offerings have been significantly enhanced to better support contextual collaboration. This means that people can find and process relevant information more quickly and easily with ready access to communications capabilities within the context of the activity being performed. For example, when you see a name, you can see whether or not that person is available and right-click to start a chat or compose an e-mail. You can even click to call the person using built-in Voice over IP (VoIP) or an IP-enabled telephone. In addition, new capabilities such as a vertical view preview pane, ghosted calendar entries, in-line spell check and a business card view of contacts further speed task completion.

Project-related content

In-boxes can become overloaded quickly when collaborative tools are not integrated with process methods. It's time consuming and unproductive to sort and filter through a long list of e-mails, scan through various file folders and check voicemail and chat history when a decision needs to be made.

IBM is the first company to integrate activity-centric collaboration, making it easier for people to link multiple sources of information related to a given task, process or project.

Composite applications allow users to quickly assemble applications or information components into a single view or work environment. People need a fast, simple way to link disparate sources of information related to a process or project. With IBM collaborative solutions, people can take an activities-based approach to finding information that allows them to tag content, such as e-mails, instant messages and documents, and associate it with specific projects. Using activity views, users have a complete context for their work—all in a single view. They don't have to open other applications to perform project tasks or search for an e-mail with the information they need, and they can deal more easily with interruptions by suspending and resuming activities as needed.

Composite applications

To simplify deployment, reduce maintenance and system complexity and promote reuse, IBM supports the creation of composite applications. Authorized users can select from a catalogue of available services to quickly assemble any type of application or information component—regardless of its source, format or location—into a single in-box view or work environment. For example, a composite application for sales teams might combine a standard IBM Lotus® Notes® collaborative application with components from sales force automation (SFA), customer relationship management (CRM) and order-entry applications. Composite applications remove the need for extensive IT involvement while insuring that standard business information can be securely and quickly customized and accessed by end users. Functionality can be easily reused, changed, moved, consolidated or eliminated as business needs dictate.

With embedded document management capabilities, people can create and edit documents using their preferred business applications—and access the latest content quickly.

Web-based team spaces help make collaborative activities transparent and natural by bringing together desktop applications, content repositories and team services.

Embedded content tools

Conflicting versions of project-related documents create confusion, forcing teams to make decisions based on inaccurate or incomplete information. IBM embeds document management capabilities that enable people to create and edit presentations, spreadsheets and documents. Quick and easy access to centralized documents is integrated into common applications such as e-mail, office applications, instant messaging, Microsoft® Windows® Explorer and team-based repositories. Role-based security limits information access and update capabilities to authorized team members, and centralized document management simplifies version control. Because the embedded content tools are compatible with multiple file formats, people can use their preferred applications to create and update documents. With easy access to complete and up-to-date content when they need it, team members are able to take appropriate actions and make better, more timely decisions.

Enhance team collaboration through Web-based team spaces

IBM breaks down organizational, geographic and application barriers among distributed team members with Web-based team spaces that connect popular desktop applications, content repositories and team services such as wikis and blogs. Collaboration is transparent and natural. People can share content in real time without clogging up their e-mail in-boxes. Instead of sending unnecessary copies of file attachments, for example, team members simply access the latest document versions from a sidebar view of shared content.

With IBM collaborative solutions, you can give teams a protected "place" to coordinate tasks, discuss ideas, share the latest documents and communicate about decisions and actions—helping to optimize team collaboration and speed project completion. For example, extensible, prebuilt IBM templates are a great way

Through IBM networking services, organizations can tap the collective knowledge of communities, support secure interactions and filter content to protect intellectual property.

to build team places right out of the box for immediate value and to support common business processes—without the need for IT support or extensive training. In this way, you're able to empower greater levels of collaboration, more securely.

Promote community knowledge discovery and information sharing with social networking

Business users are just as likely as consumers to build beneficial, virtual relationships based on common interests and expertise. Within highly dispersed project teams and business networks, however, there are many people who not only do not know each other, but do not know of each other. To help promote the free exchange of ideas among like-minded people, IBM has taken the lead in applying the consumer-based, social networking concept to crossorganizational business networks. With IBM networking services, organizations can securely and easily tap into collective knowledge by enabling formation of fluid communities of interest. Organizations can support secure group interactions and filter applicable content as appropriate to protect intellectual property and maintain business focus. And teams benefit with best practice templates for activities that can be shared across teams and departments, supporting consistent business performance and higher quality decisions.

Profiles and social bookmarking for sharing organizational expertise

Any organizational change can temporarily affect the collective awareness of who knows what.

The IBM Dogear (also known as social bookmarking) and profiles capabilities help people stay current on what's happening with their colleagues and discover new relationships, by allowing contact searches based on expertise and interest—not just position or location or even a person's name.

Bookmarking capabilities allow people to search for contacts based on expertise and interest—in addition to a person's name, job or location.

Blogs provide venues for people—no matter where they are located—to share ideas, solve problems and tap expertise throughout their business networks.

Dogear requires the use of real names and authentication with a corporate directory. Real name identity allows users to look up additional information about people in various corporate databases (such as the online directory and the enterprise Web). It also facilitates communication, because most corporate collaborative tools use real name identities. For example, if someone is looking for a colleague who is knowledgeable about Java™ code, she might look to see who has bookmarked articles on that topic and then send an e-mail to get more information or subscribe to a syndicated feed that person has bookmarked on the topic. This way, she can easily find the experts she needs, when needed—without ever having met them in person.

Blogs for spontaneous collaborative problem solving

When people are co-located, unplanned meetings occur as a matter of course. With physical separation, other venues must be provided to foster these spontaneous interactions, during which people share ideas that often spark new approaches to business challenges. Using social bookmarking and blogs, people quickly learn where expertise resides in their extended business network. They have access to what these experts are reading, and they can engage freely and securely with them to identify business opportunities, explore new ideas and solve problems. And these collaborative capabilities can be extended beyond the firewall to nurture relationships with customers and business partners.

Increase your return on investment by leveraging what you have

IBM offers the right combination of software, hardware and services to help you achieve rapid time to value in virtually any IT environment. You don't have to rip out and replace what you already have, and you're able to choose the scope of implementation based on your specific business needs.

IBM can help you achieve results from your collaborative solution quickly—regardless of your IT environment and without replacing the systems you have today.

To accelerate deployment of collaborative solutions, IBM offers flexible financing options, an open-standards-based platform, prepackaged systems and preintegrated implementation services.

Integrate with existing technologies

To help you protect and leverage your existing IT investments, the IBM portfolio supports a wide variety of client/server operating systems including IBM i5/OS®, IBM z/OS®, IBM AIX®, Sun Solaris, Red Hat and SUSE Linux® (client/server) and Microsoft Windows (client/server) software, as well as Apple Macintosh clients. No matter how you design your solution, you can gain measurable results quickly, without sacrificing the flexibility you need to scale as your business needs change.

Preserve capital

To help you get started with minimal up-front cost, IBM offers complete and extremely flexible financing. You're able to integrate your IT solutions—including hardware, software and services from both IBM and third parties—into a single financing contract with a single periodic invoice. As a result, you can reduce up-front project costs and risks, while preserving access to capital for more flexible decisions throughout the technology lifecycle.

Streamline deployment and management

IBM solutions leverage the open, standards-based Eclipse Rich Client Platform (RCP) technology and Java and Web 2.0 capabilities, so you can build a security-enhanced collaborative platform that is easier for your IT staff to deploy, extend and manage. If you are simply upgrading your Lotus Notes software, automated server-managed provisioning eliminates the need to touch individual desktops. If your solution includes the IBM Lotus Sametime® 7.5 instant messaging platform, IBM provides a suite of implementation services to help accelerate deployment of real-time collaborative solutions. And if you purchase IBM

System i™ technology, IBM offers an integrated, scalable and secure systems environment through packaged systems models that are designed to support collaboration and IP telephony functionality. Organizations also can choose to have IBM manage their collaborative applications using the IBM Applications on Demand™ service to speed up deployment and optimize use of IT budgets and resources.

Conclusion

Collaboration is taking on a whole new meaning in scope and context. It's not just about improving productivity. It's not simply task related. And it's not restricted to teams. Organizations are moving to integrate information, content and application sharing with knowledge and idea sharing throughout their business networks. By tapping into the collective intelligence of their employees, customers, suppliers and partners, companies can foster responsiveness and accelerate innovation. Wherever you are in your planning or implementation of collaborative solutions, IBM provides the essential software, expert services and high performance hardware needed to help you tighten connections among people inside and outside the organization.

The IBM collaborative portfolio offers ultimate choice to support a secure, reliable and scalable infrastructure, complete with the flexible access points people need to work the way they want and collaborate with whom they choose for optimal business results. Only IBM brings more than 20 years of experience delivering proven, innovative, secure collaborative solutions for business—from software to hardware to services to financing. You choose what you need and IBM delivers. IBM backs this promise with reliable, expert support—worldwide, 24×7 —and a track record of results realized by thousands of organizations. You're able to easily extend and enhance your existing collaborative tools to improve individual productivity and team effectiveness today—without limiting your choice of the latest technologies in the future.

For more information

To learn more about how IBM can help your organization harness collective knowledge for business benefit, visit:

ibm.com/itsolutions/collaboration



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Produced in the United States of America 04-07

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