Business computing has entered a new phase: Enterprise 2.0, in which social networking and collaboration are becoming an intrinsic part of end-user computing. Driving this trend is the increasingly pervasive and routine use of social networking and collaborative tools (wikis, blogs, microblogs, RSS, etc.) in end users’ day-to-day work and in business applications.

Effective collaboration has become a business imperative. Professionals in all walks of life—from salespeople to health workers—must be able to access and share key data instantly from wherever they happen to be at any given time. “The interest in social networking and collaborative software is pervasive, from people using tools outside the work environment to fully sanctioned wiki environments inside organizations,” says David Gilmour, senior vice president of collaboration technologies at Oracle. “No longer separate, those social dimensions are increasingly becoming an aspect of every software application.”

Senior technology and business decision-makers need to face up to this new reality by bringing disparate social networking and collaborative tools under a cohesive, enterprise-wide computing infrastructure. “There is an inherent interrelatedness between different types of collaboration, which should be built into relationships between the different tools,” says Gilmour.

Enterprise 2.0 offers tremendous opportunities for businesses to realize creative ideas and boost productivity and competitiveness. Achieving it, however, requires companies to adopt a different approach to collaboration. As long as collaborative tools remain separate entities, often deployed in an ad hoc manner and maintained by the end users themselves, organizations cannot achieve all the
benefits of a fully integrated collaborative infrastructure.

“Unfortunately, the more business users recognize the paybacks of having different parts of the organization collaborate, the more freestanding collaborative tools get brought in under the radar, and the more information is generated outside IT’s control and compliance strategies,” says Gilmour. This puts IT in a quandary: how to foster collaboration and at the same time control it to protect business assets.

This paper discusses the challenges and risks of sticking with a silo-based collaboration strategy, and how businesses can realize the benefits of an Enterprise 2.0 computing strategy.

THE CHALLENGE
Today, most businesses use a piecemeal, silo-based approach to collaboration that cobbles together an assortment of incompatible tools and platforms, each with its own database, directory and administration console. This type of strategy creates an IT environment that is chaotic, costly and counterproductive: user productivity suffers; data is difficult to locate; tasks slip through the cracks; miscommunication and missed connections happen all too frequently. IT staffs struggle to maintain what amounts to a grab bag of collaborative tools and systems with different architectures, dependencies and interfaces. Furthermore, companies waste tens or hundreds of thousands of dollars maintaining dedicated collaborative systems apart from the data center.

CONSIDER THESE EXAMPLES:
- A manager with an urgent problem can’t easily find his boss because his instant messaging (IM) client has no access to his boss’s schedule, and has no idea where he is physically located.
- During an online meeting, a team leader assigns a task that shows up in the team’s to-do list but not the assignee’s to-do list.
- An IT support person spends half an hour looking for the answer to a client’s question because she is unaware that someone else answered it via email a week ago.
- A product team contacts a vendor not realizing that the sales team has already done so.

Uncontrolled collaboration threatens security and compliance. In the face of escalating hacker threats and ever more stringent government regulations, many companies are moving toward holistic governance, risk management and compliance programs. Silo-based collaboration software installations represent a huge hole in such strategies. IT staffs have no centralized, proactive strategy for monitoring or controlling the collaboration tools (like IM clients and wiki sites) users keep bringing in, nor do they have any way to evaluate which ones are safe and appropriate for business purposes. As a result, they often wind up either over-regulating and stifling end-user creativity or under-regulating and running the risk of security breaches and noncompliance.

Complicating the situation are collaborative business activities that increasingly extend outside the corporate firewall. Employees need to be able to share information—sometimes critical and sensitive information—with partners, customers and outsourcing vendors, as well as traveling colleagues. Some companies try to address the problem by limiting the types of information that can be shared with outsiders—for example, prohibiting employees from sending any customer-related data via email. Again, IT faces a quandary: too many limits can curtail important collaborative projects or hurt relations with customers or suppliers, while too few can leave the firm open to a serious security breach.

“Collaboration technology is converging, but the IT environment that supports it is fragmenting,” says Gilmour. “Worse is end users’ experience, since they have to deal with an increasingly disconnected set of Internet services, client-based tools and in-house applications.”

ENTER ENTERPRISE 2.0
“Today’s collaborative environments are burdened by an excess of independent moving parts,” says Gilmour. A typical organization could easily have five or six platforms for collaboration applications, including email, file sharing applications, IM, conferencing and wikis—making it that much harder for IT departments to manage information and enforce a consistent set of compliance and security policies.

In contrast, an Enterprise 2.0 collaborative solution such as Oracle Beehive provides a comprehensive set of collaborative, communications and social networking
services on a single platform that was built from scratch to be secure, fully integrated and scalable. Oracle Beehive's centralized management infrastructure ensures that all applications and user content are managed via one console, greatly easing the IT administrative burden.

Oracle Beehive is preconfigured to work seamlessly with Oracle Universal Records Management (URM), ensuring that various user documents can be incorporated into a single, unified file plan. This, in turn, significantly reduces the complexity and cost of managing compliance, data retention and security across different collaborative services.

By supporting Oracle's Business Process Execution Language (BPEL), Oracle Beehive can automate and streamline time-consuming business processes such as approvals of expense reports and legal documents. The platform can “listen” for hundreds of different events and take appropriate action automatically. For example, when a user puts a document into a folder, Oracle Beehive can call up a preconfigured workflow process that sends it to the right people for approval.

“By building these processes into a unified collaboration system, not only do you improve process productivity, you ensure that key administrative processes are managed effectively, consistently and efficiently,” says Gilmour. This is particularly crucial when it comes to security and compliance-related processes such as: retaining documents and signoffs for future e-discovery; efficiently auditing user activities; securing documents in a consistent way; and generating reports showing progress and process completion over time.

Oracle Beehive also supports Oracle's Information Rights Management (IRM) offering, which uses encryption and ID-based authorization to determine who can access, read or change a document or email attachment. Controls are incorporated into email attachments and documents, remaining in force no matter where the information travels or on what system it resides. Oracle IRM addresses the problem of how to secure sensitive information even when shared and transported outside the company, without compromising security and compliance requirements.

Oracle Beehive is also designed to work with Oracle's Enterprise Manager, which provides top-down, real-time monitoring, performance and configuration management across the full range of Oracle business and collaborative systems.

**SEAMLESS INFORMATION FLOW**

In a typical silo-based collaboration application environment, even limited integration across disparate tools and services requires writing extensive amounts of code. An Enterprise 2.0 platform such as Oracle Beehive provides seamless integration right out of the box, ensuring that end users work efficiently both as a team and on their own.

One of Oracle Beehive's key components is a “personal workspace,” which provides each end user with an individually tailored screen through which he can access email, instant messaging, calendar, presence, tasks, voice and Web conferencing, and voicemail. These tools talk to each other, and to team workspaces, ensuring that knowledge workers remain apprised of upcoming meetings, project status, each others’ whereabouts, and any new material posted to a team wiki or shared folder.

For example, a meeting scheduled during an online team meeting automatically gets propagated to members' personal calendars. Furthermore, through IM, “My secretary doesn’t just know that I’m busy, she knows I’m in room 416 in a meeting with Fred Smith,” says Gilmour.

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DAVID GILMOUR
SENIOR VICE PRESIDENT OF COLLABORATION TECHNOLOGIES, ORACLE
Oracle Beehive’s support for open standards enables users to choose their collaborative desktop tools and mobile devices (within IT boundaries) and gives organizations the choice of cutting over or migrating gradually to a fully realized Enterprise 2.0 infrastructure. “Oracle’s strategy is to be open and not prejudge what toolsets companies should be deploying,” says Gilmour. A standards-based and open infrastructure enables the platform to support different end-user tools and enterprise systems, including those that haven’t been invented yet, he adds.

For example, Oracle Beehive’s user management system can administer user and group information and access rights across its own directory, Microsoft Active Directory, or any LDAP-compliant directory. The Oracle Beehive system can work with a variety of clients ranging from standards-based to mobile device and web clients. Furthermore, Oracle Beehive can work directly with Microsoft Exchange while offering other integrated collaboration services. IT can thus “tightly manage compliance and security from a single model platform, without throwing a wet blanket on exciting collaborative things users want to do,” Gilmour says.

Scalability and reliability are critical factors, given the increasing business importance of collaboration applications. Leveraging mature, enterprise-ready solutions such as Oracle Fusion Middleware, Oracle Database and Oracle Applications, Oracle Beehive is designed to grow with organizations and meet their evolving needs.

Enterprise 2.0 computing is also about breaking down the walls between process-driven business applications and knowledge-driven collaboration and productivity applications in which users improvise their own ad hoc processes, says Gilmour. An Enterprise 2.0 platform provides smooth and thoughtful integration between financial or enterprise resource planning (ERP) systems and the spreadsheets, portals and document editing tools employees use on a daily basis. This enables a knowledge worker, for example, to segue seamlessly from working on an expense report to joining an impromptu online team meeting, or easily load the results of a business process onto a portal or blog.

**THE BOTTOM LINE**

Moving from a silo-based, fragmented collaborative approach to an Enterprise 2.0 system such as Oracle Beehive allows a company to:

- **ACHIEVE** hard-dollar cost savings
- **REASSERT** compliance control over all enterprise-wide collaboration activity
- **INCREASE** user productivity and satisfaction by deploying Enterprise 2.0 capabilities through popular desktop tools and mobile devices

Through an Enterprise 2.0 platform such as Oracle Beehive, companies can realize significant paybacks in user productivity and IT efficiency. For example, Gilmour reports that Oracle Corp. itself has reaped considerable productivity gains by having a single management console and toolset to manage system performance, updates, and security and compliance requirements.

Above all, businesses can move to next-generation enterprise computing in which collaboration and social software are an intrinsic part of all business activities and the enterprise business-computing infrastructure. “The boundary between the two sides of enterprise computing is falling,” says Gilmour. “We anticipate showing how it can fall in high-value ways that are cost-effective, too.”

For more information, visit [www.oracle.com/products/middleware/beehive](http://www.oracle.com/products/middleware/beehive).