The Business Case for Enterprise Collaboration
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Executive Overview

Enterprise Collaboration is a process in which the right people connect with the right expertise or information at the right time to drive the right business decision. In today’s business world characterized by global competition, increased specialization of expertise and a fast pace of decision-making, collaboration is not just another buzzword — it is often the difference between success and failure.

Described by one subject matter expert as “the fundamental starting point for...transformation, [without which] organizations will be unable to evolve their employees or processes1," enterprise collaboration is clearly an important success factor in today’s knowledge-based economy. So why aren’t there more companies investing in this important capability — one that can improve employee productivity, strengthen competitive positioning and drive new innovations? The answer often lies in the difficulty of developing the right collaboration strategy, synthesizing the optimal implementation plan, and estimating the credible Return on Investment (ROI).

Drawing on the latest research and direct industry experience, this paper describes not only why organizations must develop a robust enterprise collaboration strategy, but also how. To this end, it will highlight some inexorable trends that necessitate and enable enterprise collaboration, discuss ‘intelligent’ technologies that enable the ‘art of the possible’, summarize key business imperatives across a range of industries, and provide synopses of company success stories.

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1 Giga Information Group (now Forrester Research), Dan Rasmus
As with other pivotal developments in the evolution of information technology, such as database software, e-mail, and Enterprise Resource Planning (ERP) systems, organizations that are first to figure out the best ways to use [the collaboration technologies] can gain a competitive edge by making profound improvements in their operations.

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Oracle White Paper—The Business Case for Enterprise Collaboration

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Introduction

Collaboration is not a new phenomenon. Man, often called ‘the social animal,’ has been leading a cooperative life since as far back as three million BC\(^2\). The collaborative activity, one imagines, must have reached a notable height as human civilizations took root in places like the Fertile Crescent.

The notion of enterprise collaboration is likewise as old as the enterprises themselves; however, it is only recently that the information technology has been used to improve it. For instance, since the 1980s, companies have been using individual productivity tools such as word processors and spreadsheets. The 1990s saw the rise of basic messaging tools such as e-mail and chat. Beginning in the early 2000s, the capability has moved to increased team productivity (e.g., wikis, blogs, and remote conferencing). However, the real promise of enterprise collaboration — enterprise-level productivity achieved through the right connections at the right time — has largely remained an elusive ‘holy grail.’

A number of global trends and enabling technologies, however, move us closer and closer to this vision, amidst several key-impeding challenges. In the next few sections, we will discuss some key trends, challenges, and required capabilities in relation to all three levels of enterprise collaboration: individual, team, and enterprise productivity.

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\(^2\) The history of the information highway (http://www.hoboes.com/NetLife/Children/history.html)
Enterprise Collaboration Trends

There are four major trends that make enterprise collaboration increasingly vital for success. They are:

- **Globalization**: Every company in today’s world is affected by globalization, and the more globalized the business is (or wants to be), the more important enterprise collaboration becomes. Cisco reports that ‘Web 2.0 and social networking technologies are making (Cisco’s) globalization efforts far more effective than was previously possible.’

- **Increased Specialization**: A McKinsey & Company report asserts ‘increasing specialization of knowledge-based work has made collaboration within and among organizations more important than ever.’

- **Innovation Imperatives**: In today’s competitive environment, the only way to avoid commoditization and ensure competitive advantage is through innovation. Collaboration is reported to ‘accelerate the pace of innovation in three key ways: By promoting real-time organizational awareness of opportunities for innovation; by shortening the cycle time for experiment conception and design; and by tapping the power of grassroots participation to drive acceptance, adoption, and expansion of ideas.’

- **Distributed Expertise and Partnerships**: In today’s global economy, employees often have to coordinate efforts with people all over the globe. In research conducted by SDL, 59% of the surveyed considered their teams geographically dispersed. Not surprisingly, more and more companies consider harnessing the ‘power of the masses’ across functional / geographic boundaries a critical success factor.

While the above trends make enterprise collaboration necessary, there are other trends that make enterprise collaboration easier. Most important among them are falling costs of communications and increased adoption of Web 2.0 technologies in social contexts, as described below.

- **Falling Cost of Communications**: It is a well-known fact, one that has been reiterated in a recent McKinsey report, that communications costs have been falling dramatically, especially following the fiber-optics glut of the late 1990s and the ensuing dot.com bust. A three-minute, NY-London call would cost about $3.32 in 1990, but today a similar call can be made for pennies using VoIP.

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3 Cisco, “Creating a Collaborative Enterprise”
6 Hafbauer, 1991
• **Widespread Adoption of Web 2.0 Technologies**: Consider the following facts (also depicted in Figure 1) to get a sense of how quickly Web 2.0 technologies have permeated our social lives.

  - It took radio 38 years, TV 13 years, and the Internet 4 years to reach 50 million users; Facebook achieved this in less than 9 months
  - There are roughly 1.5 million pieces of content shared on Facebook daily
  - Wikipedia boasts over 13 million articles, with ~156 new ones added every hour
  - There are over 200 million blogs on the Internet, 54% of which create new content every day
  - 96% Generation Y (which continue to enter the labor market en masse) use social media, many of them extending / demanding its use in workplaces

**SOCIAL TRENDS CONFIRM THE WIDESPREAD ADOPTION OF WEB 2.0 TECHNOLOGIES**

Even with these overwhelming forces that both necessitate and facilitate collaboration, organizations face many daunting challenges that must be addressed in order to make it a value-adding proposition.
Enterprise Collaboration Challenges

There are three major challenges that organizations, large and small, face when it comes to widespread adoption of enterprise collaboration, as described below.

- **Misaligned Culture**: This category of challenges relates mainly to lack of executive sponsorship, lack of sharing/co-operative culture, and generally misaligned incentives (i.e., individual achievements encouraged at the expense of team success). As with any technology investment, success requires addressing these cultural issues in addition to any attendant process/technology issues.

- **Mismanaged Data**: The volume of data (estimated at hundreds of exabytes by IDC) is growing as fast as 60% per year, as of 2009; however, according to Gartner, most of this data is unstructured and unmanaged (See Figure 2). Even more alarmingly, 90% of this data is lost. Overwhelmed with such massive, unstructured and hard-to-find data, employees complain that 50% of their searches routinely fail.

- **Unknown and Untapped Expertise**: Perhaps the most frustrating of all challenges is the tacit realization that the requisite expertise could be leveraged from within the organization, if only one knew who to connect with at the right time. As shown in Figure 3, much of the enterprise opportunity to innovate and drive productivity is lost owing to unknown (or otherwise untapped) expertise.

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7 Ponemon Institute, Lojack, EBRI reports
8 IDC
Falling communication costs, globalization, and the increasing specialization of knowledge-based work are making collaboration within and among organizations increasingly important.

McKinsey Quarterly

**LACK OF ACCESS TO EXPERTISE OUTSIDE ONE’S (IMMEDIATE) NETWORK**

![Diagram showing lack of access to expertise and its consequences]

67% Some people in my company can help me do my job better

54% Opportunities to innovate are missed because the right people do not work together

51% Wrong decisions are regularly made because employee knowledge isn’t efficiently tapped

60% Work is often duplicated because people are unaware of each other’s work

**Figure 3**

Capabilities Required to Overcome These Challenges

Broadly speaking, the capabilities required for enterprise collaboration can be grouped into those that enable connections with the right expertise and those that enable connections with the right information (including creation, storage, search, and re-use of content).

Connections With the Right Expertise

- **Making the right connections (even those you did not know existed) quickly and easily:** In today’s global, virtual work environment, it is essential that employees locate and connect with ‘the right experts’ (e.g., on proposal writing or sales prospecting) who may reside thousands of miles away or right around the corner — albeit outside the employees’ explicit network. Enabling the right connections to happen, even in the absence of explicit, a priori knowledge by either collaborator, is the next frontier in enterprise collaboration (and is aptly coined ‘Intelligent Collaboration’ by Oracle).

9 An Oracle Corp. framework
• **Enabling broader social networks:** The rise of social sites such as Facebook or LinkedIn suggests both the popularity and effectiveness of social networking. By allowing members to express their interests and expertise to one another, these sites enable employees to assemble into communities (e.g., for brand loyalty or supply chain excellence) and thus improve their productivity and effectiveness.

Connections With the Right Information

• **Exchanging ideas and making decisions together:** Processes and systems that enable efficient group interactions and decision-making, regardless of the physical distance, enable cross-enterprise collaboration. For example, the ability to co-create documents, co-design products, and co-manage projects allows real-time collaboration and decision-making, while minimizing re-work and inefficiencies arising from miscommunication and design errors.

• **Sharing, accessing, and re-using information:** Standardized processes and systems allowing efficient collection, aggregation, and provisioning of information to all the relevant ‘consumers’ based on their roles and responsibilities further encourages knowledge sharing and re-use.

• **Finding information you did not know you wanted:** Through content broadcasting and syndication based on expressed interests, information can now be ‘pushed’ to employees as it becomes available. Clearly this saves time and effort; equally importantly, it shifts the expectations from ‘just-in-case’ to ‘just-in-time.’

• **Securing content:** While capturing and providing the enterprise content is important, protecting such content from loss, theft, or unauthorized access is also essential. To counter corporate espionage, among other threats, companies must include security / identity management capabilities into their enterprise collaboration strategy.

Technologies That Enable These Capabilities

Oracle offers a complete suite of enabling technologies as shown in Figure 4 on the next page. The solution set is **complete** (in that it enables all the different capabilities discussed above), **open** (in that any module within this solution set will readily inter-operate with other open third-party solutions, e.g., Microsoft SharePoint), and **integrated** (in that all the modules shown are fully integrated out-of-the-box to work as one cohesive set).
Benefits of Enterprise Collaboration

The chart in *Figure 5*, McKinsey’s analysis on productivity and enterprise collaboration, well captures the tremendous value that organizations can realize from a carefully designed and flawlessly executed enterprise collaboration strategy.
ENABLING ENTERPRISE COLLABORATION WILL DRIVE THE NEXT WAVE OF PRODUCTIVITY GAINS

Indeed, the types of productivity itself can come in three different forms — individual, team, and enterprise productivity — each creating progressively more value than the one before it, as shown in Figure 6.

THREE LEVELS OF PRODUCTIVITY FROM ENTERPRISE COLLABORATION

Individual and Team Productivity

Individual and team productivity come from a number of areas, as described below.
• **Travel / printing costs:** By replacing internal meetings and live events with virtual, collaborative events, wherever appropriate, organizations can save millions. It is estimated that, on an average, a remote teleconference saves up to 98% of the live face-to-face meeting costs.

• **Data storage:** The major costs in this bucket include production and archival costs incurred by end-users (e.g., in managing one’s e-mails) as well as the backup and storage costs incurred by the IT professionals.

• **Cost of content re-creation:** Time lost associated with the unnecessary re-creation of documents and format manipulation amounts to millions of dollars in wasted productivity for a 1000-employee organization (See Figure 7 below).

• **Cost of unsuccessful search efforts:** The above logic also applies to the time wasted on basic tasks such as searching for content (See Figure 7 below).

### ESTIMATED INDIVIDUAL AND TEAM PRODUCTIVITY BENEFITS FOR A TYPICAL 1000-EMPLOYEE ORGANIZATION (ILLUSTRATIVE)

<table>
<thead>
<tr>
<th>Top Tasks</th>
<th>Weekly Average Hours Per Worker</th>
<th>Average Annual Cost (1,000 Workers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>14.5</td>
<td>$29.0M</td>
</tr>
<tr>
<td>Create documents</td>
<td>13.3</td>
<td>$26.6M</td>
</tr>
<tr>
<td>Analyze information</td>
<td>9.6</td>
<td>$19.2M</td>
</tr>
<tr>
<td>Search</td>
<td>9.5</td>
<td>$19.0M</td>
</tr>
<tr>
<td>Edit/ review</td>
<td>8.8</td>
<td>$17.6M</td>
</tr>
<tr>
<td>Gather info</td>
<td>8.3</td>
<td>$16.8M</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wasting Time</th>
<th>Weekly Average Hours Per Worker</th>
<th>Average Annual Cost (1,000 Workers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reformatting</td>
<td>3.8</td>
<td>$7.6M</td>
</tr>
<tr>
<td>Searching but not finding</td>
<td>3.5</td>
<td>$7.0M</td>
</tr>
<tr>
<td>Re-creating content</td>
<td>3.0</td>
<td>$6.0M</td>
</tr>
<tr>
<td>Publishing from multiple applications</td>
<td>2.8</td>
<td>$5.6M</td>
</tr>
<tr>
<td>Moving documents from one format to another</td>
<td>2.4</td>
<td>$4.8M</td>
</tr>
<tr>
<td>Acquiring archive records without automation</td>
<td>2.3</td>
<td>$4.6M</td>
</tr>
<tr>
<td>Controlling versions</td>
<td>2.2</td>
<td>$4.4M</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>$40.0M</td>
</tr>
</tbody>
</table>

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10 AIIM e-mail benefits model

11 IDC and Oracle analysis

Enterprise Productivity
Enterprise productivity can come from a number of areas, ranging from improved decision-making to reduced re-work to a more robust innovation pipeline to fewer sub-optimal decisions based on imperfect information. Indeed, the promise of such timely ‘collaboration brokering’ — enabled, for example, by Oracle technology through expertise automation (i.e., automatically knowing who knows what, without requiring any user involvement) and through social network discovery (i.e., automatically knowing who knows whom without requiring any user involvement) — is game-changing transformation, if applied to the right process / activity.

Some examples of the benefits that enterprises can reap from collaboration are:

- **Outsourced management costs**: As outsourcing trends increase, so do the costs of managing these arms-length relationships. Enabling collaboration across the extended enterprise can both reduce such costs (e.g., miscommunication, re-work on products, and missed deadlines) and enable greater effectiveness.

- **Being wrong early, being right more often**: The ability to quickly test new ideas and make necessary iterations is a strategic advantage. ‘Fast-to-failure’ is often as important as ‘fast-to-success’ in today’s demanding marketplace, where a 40% success rate is considered exceptional\(^2\).

- **Reducing error rates and re-work time**: An estimated 35% of all scientific, marketing, engineering and sales research dollars are wasted in re-work\(^3\). Even a modest 10% reduction in re-work through improved collaboration would result in millions of dollars in cost savings for most medium or large enterprises.

- **Other savings**: There are numerous other organizational benefits, many of them company, job, or industry-specific. However, a few merit acknowledgment, e.g., becoming the first in licensing new technology, thus strengthening the innovation pipeline; discerning new trends owing to tighter collaboration with field resources; and driving increased employee engagement and satisfaction, which leads to increased employee *and* customer loyalty.


\(^3\) IDG
Industry Perspectives

Although the challenges and benefits discussed so far apply, in varying degrees, to all industries, it is worth noting that their magnitude and importance may vary significantly from industry to industry. For the sake of brevity, we limit our perspectives to only a few industries14.

Government

Government is under increased demand for enhanced responsiveness, transparency, and accountability. Indeed, United States President Obama, who is widely held as a tech-savvy visionary, has pledged to make great strides in these key areas. Coordination and knowledge sharing in the government sector is needed, not only at the federal level, but also between federal, state and local agencies, be it in the area of welfare, homeland security, or disaster response.

Organizations such as the US Department of Defense and the US Joint Forces Command, as well as many state and local agencies, have started to use collaborative technologies to build internal and external knowledge repositories.

Services Organizations

Many services organizations rely on the power of knowledge for competition and value creation. Whether the organization is focused on software certification, compliance regulation, or transformation methodology, knowing sells and ‘knowing how’ delivers. Especially as the amount of information proliferates, it becomes critical for service providers to manage and harness the collective knowledge of their employees (and of their customers and partners).

High Technology

With short innovation cycles, changing customer needs, and intense global competition, harnessing the ‘power of the masses’ (i.e., employees across functional and regional silos, and customer / partners across the value chain) has become extremely important for the high-tech industry. Such cross-enterprise collaboration often requires robust, scalable, and secure platforms for collaboration.

Pharmaceuticals

The pharmaceutical industry is complex and risky, with long drug-development cycles, increasing pricing pressures, and stringent regulatory requirements. With average product development

14 Please contact the Oracle Insight Program if you would like more information on these or other industries.
costs exceeding $897 million\textsuperscript{15} — and 80\% of the cost incurred by the clinical stage — the cost of developing new (or ‘the wrong’) drugs is costly, to say the least. It is, therefore, critical for pharmaceutical companies to spot the losers early, and discontinue efforts before the costly clinical stage. It is sobering to know that studies indicate many of these failures could have been avoided (or the associated costs mitigated) if the relevant information were shared amongst the key stakeholders \textit{early}.

Customer Success Stories

Many companies, across industries, have already started to realize the potential of expanded enterprise collaboration. Summarized below, for illustrative purposes, are a few noteworthy successes.

\textsuperscript{15} Tufts Center for the Study of Drug Development, \textit{R&D Report}, 2003

How can Oracle help?

Oracle Insight Program

Oracle Insight uses a proven methodology, which is flexible and customized to individual company objectives. Most engagements consist of four steps: Industry Perspective, Discovery, Solution Design, and Solution Presentation.

Industry Perspective

Given the plethora of acquisitions made by Oracle, we want to help you understand how these new capabilities have helped others in your industry. Oracle facilitates an in-depth discussion with your executives about industry trends, best practices, vision, strategy, challenges, and roadblocks.

Discovery

Leveraging established industry frameworks and robust intellectual property, Oracle Insight collaborates with you to assess your current business processes and identify the capabilities required to achieve your corporate strategy.
Solution Design
Oracle recommends best practice processes and supporting technology, including a time-to-benefit analysis and implementation plan.

Solution Presentation
The Insight team works with you to create an executive presentation including supporting information, business benefits, and value drivers, to help you build consensus among colleagues and executive management or secure funding from your board.

Oracle Insight engagements are flexible. Once executive commitment is secured, the program will be customized to your needs and objectives as it relates to your project.

Conclusion
“For many employees today, collaborative, complex problem solving is the essence of their work. These ‘tacit’ activities — involving the exchange of information, the making of judgments, and a need to draw on multi-faceted forms of knowledge in exchanges with coworkers, customers, and suppliers — are increasingly a part of the standard model for companies in the developed world.”

Thus begins a McKinsey article on competitive advantage. In today’s competitive environment, enterprise collaboration is a key strategic challenge and a tremendous benefit driver for companies across industries. On the one hand, trends such as globalization, increased skills specialization, innovation imperatives, and distributed expertise / partnerships make enterprise collaboration necessary. On the other hand, trends such as falling cost of communications and widespread adoption of Web 2.0 technologies (especially in our daily lives) make investing in the enabling technologies more attractive from cost and utility standpoints.

Visionary companies that both understand this imperative and the opportunity have already started to achieve significant benefits — one multinational saving $691 million a year and another enterprise quintupling its revenues within a year. While the benefits will surely vary from industry-to-industry, company-to-company, and even process-to-process, it is now well established that enterprise collaboration technologies have come of age.

Oracle Corporation offers a complete suite of collaboration technologies, ranging from portals to content, and identity management to intelligent collaboration. These technologies are not only
complete (covering all the myriad collaboration and knowledge management needs of an organization) but also open and integrated (allowing for out-of-the-box integration even with third-party solutions such as SharePoint). By allowing companies to automatically keep track of all new information and expertise throughout its extended enterprise, these solutions allow employees to make better decisions and drive enterprise productivity.

To learn more about how Oracle can help you in both devising and implementing an enterprise collaboration strategy, please contact Oracle Insight at insight_ww@oracle.com or visit us at http://www.oracle.com/services/insight/index.html.

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16 McKinsey Quarterly, “Competitive advantage from better interactions”