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Collaboration: Beyond E-Mail

Instant Messaging, Web conferencing and team collaboration are changing the way global organizations do business. Gevity HR, Otis Elevator and Sikorsky are among the pioneers.

By Lowell Rapaport

Many of the features found in collaborative software have been around in one form or another for years. What is new is how collaboration software is being packaged to make it more powerful, practical and affordable for mainstream business and government.

One collaborative technology that has been around for a long time is document sharing. Sharing documents online is pretty much a prerequisite to collaboration. Most users began sharing documents electronically as soon as they got e-mail. However, most companies eventually find that as powerful as e-mail is, it often isn't enough. E-mailing documents around and creating multiple copies and versions of content across an enterprise wastes both network bandwidth and storage capacity. E-mail is also a technology of exclusion: if you aren't on the e-mail address list, you aren't collaborating.

Document management has long offered a more efficient and, in recent years, Web-based alternative to e-mail document sharing. Modern "team collaboration" applications take Web-based document management one step further, adding features such as real-time alerts, threaded discussions and group calendaring. Alerts let users know that there is new content to be reviewed, while threaded discussion tools let collaborators posts comments that can be associated with a document. Comments and replies are usually presented in a tree-like view that lets users carry out "conversations" asynchronously over the course of minutes, hours, days or weeks.

Synchronous collaboration technologies have also been around awhile, but between the softening economy and the aftermath of the Sept. 11th terrorist attacks, these systems are now being broadly embraced as a cost- and time-saving alternative to travel. Web conferencing, for example, allows users to share applications remotely, either by broadcasting items appearing on a computer screen or by directly sharing files and applications in a client/server-like fashion. Web conferencing software not only allows users to share documents in real time, it lets meeting participants interact with the presentation or application.

Instant messaging, which has its roots in the early days of Unix, is now rapidly spreading in both consumer and business use. Instant messaging lets users interact with one another in real time, and in corporate use, the latest technologies allow instant messaging sessions to be archived, preserving session content for later retrieval.

The following case studies illustrate how large organizations are using collaboration technologies to maximize efficiency. Gevity HR and Otis Elevator are using real-time tools to replace and augment collaboration over the telephone and in face-to-face meetings. Sikorsky and the Standards Council of Canada are using team collaboration to replace paper documents and inefficient e-mail collaboration.

Gevity HR Cuts the Cost of Training

Case Study: Gevity HR

Challenge: Cut the cost of training on the company's enterprise resource planning software.

Collaboration Software: WebDemo Web conferencing software

Vendor: Linktivity, Tucson, AZ

Gevity HR (pronounced je'-vi-tee), a Bradenton, FL-based human resources outsourcing firm, was spending a fortune bringing managers back to headquarters for monthly software training sessions. The company cut travel costs by two-thirds by switching to a collaborative Web conferencing service, but managers soon realized they could save even more. By bringing Web conferencing technology in house, the company has cut costs while also improving the effectiveness of its training programs.

Gevity HR handles payroll processing for more than 8,000 companies in the Southeast. The firm runs a suite of Oracle software including Oracle Payroll — the main application in use — as well as Oracle Financials, Oracle HR and the Oracle Portal.

According to Mark Zimmerman, Gevity HR's senior director of information technology, teaching salespeople and clients how to use Oracle was expensive. "We brought operations managers to headquarters for a monthly refresher course and to train them to use new features," Zimmerman explains. "To do this, we had to fly in and house 30 operations managers for two to three days a month. When I calculated the cash outlay for these sessions, it came to about \$15,000."

Zimmerman says there were also hidden costs such as the work time lost by the managers as well as quality-of-life issues for those having to travel several days each month.

The first step Gevity HR took in getting a handle on these expenses was to use a Web conferencing service to host training sessions. "We saved two-thirds of the cash outlay of a traditional meeting at our headquarters," Zimmerman says.

Using the service also saved the work time forfeited to travel, but it wasn't long before the fees for the Web conferencing service began to add up. "The application service provider was costing us \$5,000 per month on an ongoing basis," Zimmerman explains.

To cut costs even further, Gevity HR switched to WebDemo, an internally hosted Web conferencing tool from Tucson, AZ-based Linktivity. This real-time conferencing tool lets users host presentations and conduct meetings over the Web. The WebDemo server connects users together while the client, written in Java, is dynamically downloaded on users' machines.

To host a meeting, a user logs into the WebDemo server and enters the information needed to hold a

Resources

eRoom

www.eroom.com

Linktivity

www.linktivity.com

NexPrise

www.nexprise.com

Placeware

www.placeware.com

SiteScape

www.sitescape.com

WebEx

www.webex.com

meeting, including the schedule and user access requirements. Once a meeting is scheduled, the server sends out e-mail messages inviting users to join. Users invited to join a meeting direct their browsers or other Java-enabled viewers to the WebDemo server, where they are connected to the meeting. Control of a WebDemo conference can be passed to any participant, and any one participant's desktop can be shared among all participants. The system also supports instant messaging within a conference.

The server can integrate with external databases to draw out information such as user names and e-mail addresses. Linktivity has an API that lets developers integrate WebDemo with their own applications.

WebDemo pricing ranges from \$1,199 for five seats up to \$14,999 for 100 seats. Pricing is independent of usage. The Linktivity approach let Gevity HR cut service costs related to bandwidth from the training budget. WebDemo's server requirements are relatively modest. An 800 Mhz Pentium III with at least 512 MB of memory is needed to support up to 25 users.

According to Linktivity, five or 10 concurrent users can be supported on as little bandwidth as 256 kilobits per second (equal to two ISDN lines or a low-end digital subscriber line). Those with more than 25 users need a T1 line or equivalent (about 1.5 megabits per second). If a WebDemo server is kept behind a firewall, network administrators have to open up TCP/IP port 80 to the Internet.

"Overall, we save between \$1,600 and \$4,000 per month using WebDemo versus [our former] Web conferencing service provider," says Zimmerman.

Eliminating the incremental costs of running conferences also encouraged the use of the software for other tasks. "Besides training operations managers, we also use WebDemo to demonstrate software under development to regional vice presidents to get their input. The software lets us show projects in development and get feedback from users."

Zimmerman says that the WebDemo software is also used to improve Gevity HR's sales pitch. "Salespeople can use the software to demonstrate to the customer how our payroll system works," he explains. "Instead of relying on brochures, we can show the software in action, even without a salesperson on site. After making the sale, the salesperson can use WebDemo to show the customer how to use the software."

Because there is no cost penalty to running additional training sessions, Gevity HR has reduced the number of participants in each training session to allow for more interaction.

"We have a 25-seat license for WebDemo, but we found that training sessions went smoother with just five users at a time," says Zimmerman. "Reducing the number of participants makes the training more personalized and effective, and it also frees up the extra seats for other training sessions or sales support sessions running in parallel."

Zimmerman is upbeat about Web conferencing, and he says many Gevity HR employees use it every day. "It shortens the sales cycle, saves on training costs and makes our product demos and training more effective."

Costs Go Down, Productivity Rises at Otis Elevator

Case Study: Otis Elevator

Challenge: Supporting collaboration among Information Technology staff located around the world.

Collaboration Software: eRoom.net

Vendor: eRoom, Cambridge, MA

Otis Elevator, a unit of defense-and-industrial giant United Technologies, does business across the globe. Like many large, geographically dispersed organizations, Otis has recognized that it has to find ways to coordinate and share ideas among its widely scattered offices.

In early 2001, the Farmington, CT-based maker of elevators and escalators began searching for collaboration technology that would connect its nearly 61,000 employees. While plans for a companywide system are on hold, the IT staff has selected the front-runner in the company's enterprisewide review to mount a departmental-level project. The results have been impressive, so much so that the same system is being used to develop a companywide supply chain management system.

The leading vendor candidate in the enterprisewide review was eRoom, the Cambridge, MA-supplier of team collaboration software. While a companywide system would have surely required a massive internal rollout of eRoom's software, the IT department had more tactical and closed-ended projects in mind. As a result, the department chose eRoom.net, an externally hosted version of the software, to bring together IT staff from around the world.

According to Jeff Anderson, senior manager of IT, eRoom's features — a browser-based user interface offering document version control, threaded discussions and group calendaring — were the tools needed by the company's global IT staff to develop large-scale IT and business projects.

"It's hard to quantify the benefits of eRoom since they are mostly in the area of cost avoidance," Anderson says. "Our project management is at least 25 percent more efficient because of eRoom."

Reducing the need for travel is an important feature for the IT staff. Although they have only 100 users, those users are spread across 30 countries in North America, Europe and Asia. eRoom.net permits collaboration among users who normally wouldn't even be aware of each other's existence.

"One project we have running is an eRoom where IT departments can share best practices," Anderson says. If a system administrator in one part of the company is having a technical or practical problem, he can post a question in eRoom and begin a threaded discussion with other IT staffers offering assistance.

Another project in progress is aimed at improving supply chain management. "Like a lot of global companies, Otis' supply chain extends around the world," Anderson explains. "We have staffers collaborating in an eRoom on a project to simplify and improve the supply chain for the entire company."

Prior to using eRoom, Otis relied on e-mail and the telephone as its main collaboration tools. The company doesn't have a document management system, so e-mail was the only choice for sharing documents. One of eRoom.net's functions is to provide a central repository where posted documents can be shared with other project team members in real time. Otis users schedule meetings using eRoom's group calendar, and they also make use of eRoom Intercom, a built-in instant messaging system that reduces the need for telephone conversations and face-to-face meetings.

The cost of the externally hosted eRoom environment is \$1,500 per month for three separate collaborative workspaces. This compares with \$16,000 per server plus \$250 per seat for eRoom's

software (plus the cost of hardware, bandwidth and IT support for an internally hosted system).

"ERoom collaboration software improved our operations by bringing more users into our collaborative projects," concludes Anderson. "Not only did we bring more users into each project, but the project teams became less local, more global and involved a larger cross section of the company's employees."

eRoom isn't the only collaborative tool Otis uses. Employees also use WebEx for application sharing and Web conferencing. San Jose, CA-based WebEx is a hosted collaboration service that lets users conduct meetings online using Web browsers and a downloaded Java client. WebEx also serves as an application sharing tool since users can turn control over their desktops and the applications running on them to other meeting participants.

Teamwork Takes Flight at Sikorsky

Case Study: Sikorsky

Challenge: Replacing a paper-based approach to product development.

Collaboration Software: NexPrise Collaborative Commerce Solution

Vendor: NexPrise, San Diego, CA

Until 1999, the collaborative infrastructure at Sikorsky was limited. The well-known helicopter manufacturer (and, like Otis, a unit of United Technologies) was still sharing hardcopy documents stored in notebooks and filing cabinets.

"Even when documents were in electronic format, they still had to be printed out to paper for distribution," says Darryl Toni, Sikorsky's lead structures engineer. "This limited the number of people involved in developing the helicopter simply due to the logistics of moving paper around. Plus there was a whole document distribution infrastructure."

Storing and distributing paper documents is also expensive. Toni couldn't apply numbers to how much paper storage and distribution cost, but this was often the first item cut whenever budgets were slashed. To combat this problem, document storage was left to individual development team members. However, since many team members were on temporary contracts, documents could be lost when a member of a development team left for another assignment.

To address these and other problems, Sikorsky implemented the NexPrise Collaborative Commerce Solution. At the core the software is a document management system, but what adds a collaborative edge, according to NexPrise, is a "digital dashboard" that provides real-time monitoring of events and activities.

For Sikorsky, NexPrise eliminated document distribution and storage. Electronic documents are now stored and controlled centrally, and all project participants are automatically notified when a new document is added to a project. Collaboration begins with the design of individual components using computer aided design (CAD) systems and continues all the way through to production. In addition to CAD files and other documents, team engineers commonly share the results of analyses and simulations. Among the questions that Sikosky's design teams work out are what a part will look like, how it will be made and at what cost. NexPrise's threaded discussion feature lets users post files and data and leave comments for one another.

One of the practical benefits of the NexPrise system is its ability to expand the size of workgroups to include a wider team of users in different locations. Sikorsky's collaborative efforts center around

projects. In one example, Sikorsky has a dedicated development team for the military's Comanche helicopter that includes workers in Connecticut, Maryland, Florida and Missouri. Collaboration takes place among 10 structural engineers, 100 to 120 other designers and another 100 to 150 support personnel for a total of up to 280 people working on the project at any one time. The team designs components of the helicopter, simulating performance and conducting structure analyses to develop a specification. Collaborators also develop the tooling and manufacturing techniques needed to produce the part within spec.

"NexPrise allows the administrative tasks to be delegated to users," Toni explains. "When a project is set up in the system, lead users for each functional area within the project set up and customize their own team's collaboration space. All functional teams have cross access to other groups' information."

Sikorsky secured a 265-seat NexPrise license. Typical pricing for a NexPrise system includes \$20,000 per server and between \$50 and \$100 per user license. Although the NexPrise software includes a fully integrated WebEx client for online meetings, Toni says Sikorsky prefers to use fully equipped video conferencing rooms for face-to-face remote meetings. Collaborators use e-mail and shared Microsoft Outlook calendars to schedule and coordinate meetings.

Sikorsky's experience demonstrates that the most basic collaborative solutions, document sharing, threaded discussion groups and e-mail are all that's necessary to generate savings and improve efficiency. When confronted by a choice between reducing paper and reducing the ability to share documents efficiently, Sikorsky made a third choice — to create a collaborative infrastructure.

Timely Response Spreads Canadian Influence

Case Study: Standards Council of Canada

Challenge: Speeding the process of evaluating international technical standards among more than 4,000 participants.

Collaboration Software: SiteScape

Vendor: SiteScape, Wilmington, NC

In the world of international standards, it's hard to settle on one way of doing things if it takes forever to share ideas and reach an agreement on what the standard should be. Relying on conventional methods to communicate with approximately 4,000 participants led the Standards Council of Canada (SCC), a unit of the Canadian government, to miss nearly half its deadlines.

"We used to distribute documents to members by mail, and we spent hundreds of thousands each year on postage," says SCC MIS manager Zbigniew Ignatowicz. "Meetings were held by telephone, and members communicated with each other by telephone and e-mail."

Just as bad was the time that was lost while paperwork was in transit. "When we received a standard from an international committee, we are frequently given a deadline by which time we have to have our comments and vote in," Ignatowicz explains. "We would miss the deadline on as many as 40 percent of all proposed standards submitted to us for comment."

Since the SCC is the only means by which Canadian industry can influence worldwide technology standards, these missed deadlines represented lost opportunities to forward Canadian interests.

To close the deadline gap, the SCC began using SiteScape team collaboration software in 1996 (when it was known as AltaVista Forums). The technology was chosen because it was Web based, permitted

document sharing and provided threaded discussion groups. The immediate benefit was savings in paper and postage costs — at least an 80 percent savings over the old document printing and distribution budget.

The biggest benefit, however, was ensuring Canadian input on every international standard under review. "The software also improved our efficiency to the point where we went from being late with comments and votes 40 percent of the time to a 100-percent-on-time record," Ignatowicz says. Now known as SiteScape Enterprise Forum, this team collaboration platform lets users share documents and calendars, share threaded discussions and participate in instant messaging sessions. An important feature of SiteScape for the SCC is that it is workgroup oriented: groups of users with related interests can be brought together to work on a variety of projects over an extended period of time. The threaded discussions let committee members communicate with one another in a public way. In contrast to e-mail, this approach lets everyone in each committee join in the discussion, speeding the decision-making process.

As SiteScape's capabilities have grown so has SCC committee members' use of it. Users have begun to use instant messaging capabilities built into SiteScape, saving on telephone calls while also storing a permanent record of these real-time chats. The SCC is not yet exploiting SiteScape's integration with Placeware for Web conferencing. Rather, SCC committees still conduct physical meetings from time to time. These meetings take several months to plan and are expensive, particularly for volunteer members who have to bear the total cost of attending a meeting themselves.

Ignatowicz says he plans to encourage committees to hold more electronic meetings to save time and travel costs. "Some committees are already running group chat sessions, but we don't yet stress [the availability of] Web conferencing." This is likely to change as more committee members become aware of the benefits of electronic collaboration.

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