technology

Instant Messaging Technology Improves Design and Engineering Productivity

How One Firm Achieved Dramatic Results from a New Communications Platform

By Matthew Hunt

> *Instant messaging is no longer just a casual way to chat online: more businesses than ever are using it as a way to increase productivity, collaborate on projects remotely, and cut down on phone bills. The key, however, is having a communications platform that combines secure instant messaging (IM) with file sharing and transfer features, presence detection capabilities, and other advanced administrative functions.*

Einhorn Yaffee Prescott Architecture & Engineering P.C. (EYP) is one firm that has seen a dramatic change in productivity as a result of implementing such a communications platform. With more than 350 employees, the company serves a variety of clients in federal government, colleges and universities, industrial labs and historic preservation.

EYP constantly evaluates how new technologies can enable them to become more competitive and streamline existing business processes. Although they have four offices in Boston; Albany, NY; New York City and Washington, D.C., EYP promotes itself to prospective clients as being one entity that can leverage a wide variety of architectural and engineering expertise, regardless of geographic location. Since teams are assembled by talent rather than by office location, members of a specific project team are often spread throughout different offices. EYP needed a way for employees to collaborate and communicate that was not as intrusive as the phone, and timelier than email.

> *"…teams started getting annoyed with people who weren't using it."*

Over a 30-day period, EYP began a trial of a hosted communications platform integrating instant messaging and file sharing technology designed for enterprise use. Within a week, they found it to be indispensable. The tipping point, observed Anthony Hauck, Corporate IT Manger at EYP, was when teams started getting annoyed with people who *weren't* using it. With such a successful trial run, they quickly implemented the system throughout all four offices, and saw an instant change in the way that business was being conducted.

Keeping an Eye on a Project Throughout the Day

EYP engineers and architects use the instant messaging system as a way for all team members to monitor the progress on a project throughout the day and provide input when needed. Each morning, an instant messaging chat session is opened for a project, and the entire project team signs on. This enables everyone to watch the conversation on the project throughout the day and easily jump

> *"…much less intrusive than an all-day conference call…"*

in if something is happening that is relevant to his or her project duties. The continually running IM session is much less intrusive than an all-day conference call and not nearly as distracting to employees' regular work. In addition, the nature of IM is that messages are short and to the point, making them easy to quickly read and process.

Improved Response Times

Users have found that instant messaging is like leaving a virtual post-it on someone's desktop. You don't have to be in the same office to do that, and since messages are succinct and pop-up on the screen, employees often respond to them first. Because the system shows a user's status (when they're idle, out to lunch, busy, etc.), employees can leave brief IM notes for each other like "call me when you're back at your desk" that will be looked at more quickly than email. The short, urgent nature of IM communications often gives it "first-response" priority, since the nature of the message insists on immediate attention.

Improved Client Support

When holding phone conferences, EYP's architectural and engineering teams in multiple locations use IM as a supplementary communications medium. If there are issues that need to be resolved on a particular call, or ideas that need to be shared without interrupting the phone conference, the team involved on the conference call uses IM as a way to securely chat about an issue without the client knowing. Team members can consult with their co-workers in different offices about a particular issue without intruding on the call, or needing to discuss it later "offline." In this way, IM has become a real help in improving the quality of responses to clients.

Multi-Tasking Leads to Higher Productivity

When on conference calls, employees use IM as a way to get other work done when their particular agenda item is not being discussed. People can remain on the call while catching up and communicating about other work-related items without having to wait for the teleconference to end. Employees also use IM as a handy way to find information for a client or consultant quickly, without having to interrupt the flow of the call. In addition, IM makes it easy for others to reach co-workers, get responses from them, and resolve issues even while they are on a conference call.

Better Client Communication

Because the IM communications platform that EYP is using is interoperable with other IM systems (such as AOL, MSN, etc.), engineers and architects can chat with their clients throughout the day, regardless of which
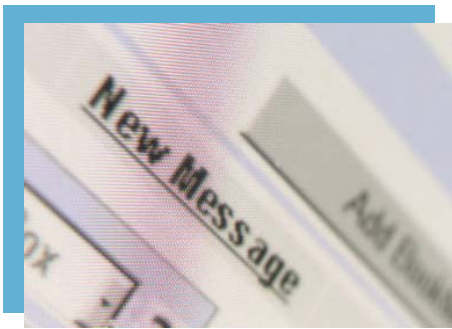
IM system their client uses. Employees have found it very helpful as a way to send quick messages to a client without the formality or the cost of a phone call. Clients also tend to respond right away when the message pops up on their screen, and since questions are quickly answered, the time it takes to complete a project is greatly expedited.

File Sharing Helps Manage Professional Documents

Another beneficial feature of the communications platform is file transfer and storage. The enterprise file-sharing systems used by EYP allows engineers and architects to securely and instantly store, distribute and transfer files of unlimited size. EYP is currently working to have the file sharing application become a highly available repository for information to aid each employee's professional practice – for example, as a place to store project specifications, useful spreadsheets for calculations, etc. By posting this information to a centrally accessible site, engineers and architects are able to retrieve personal information stores from any location, including remote job sites. In addition, file sharing makes revisions to documents more manageable, particularly when working with project teams.

"…repository for information to aid each employee's professional practice…"

Because the file sharing system that EYP is using is based on a client/server architecture, rather than a peer-to-peer architecture (where users connect to each other directly without a central point of management), it is not susceptible to viruses, worms, Trojan horses and other intrusions commonly associated with peer-to-peer file sharing.

What to Look for in a Communications Platform

The best instant messaging and file sharing communications platforms are those which have a high level of security, as is often the case when they are designed for professional use. Unlike traditional consumer IM systems, enterprise IM platforms protect against viruses and electronic eavesdropping. IM is rapidly gaining popularity among employees, as it allows real-time electronic communication, remote brainstorming, and is a cost effective and immediate way to keep in touch with traveling employees, telecommuters, clients, vendors and partners. However, firms that do not deploy a secure, enterprise IM system often find that their employees rely on consumer-grade technology, which poses an unacceptable risk to a company's intellectual property since traditional IM systems lack security features.

Advanced administrative controls are also essential for a good communications platform. These controls give users the ability to audit and archive IM sessions, control communication between user groups, assign various permission levels for access to files, etc. In addition, drag-and-drop file sharing features reduce bandwidth and storage needs and alleviate the problem of clogged mail servers by eliminating the need to send large attachments.

It is also important for the communications platform to be based on client-server architecture to avoid the problems associated with peer-to-peer file sharing software. A 2003 year-end analysis done by TruSecure Corporation found that in peer-to-peer software, such as Kazaa, 45 percent of the most popular files shared contained viruses, worms or Trojan horses. Additionally, intrusions exploiting peer-to-peer file sharing climbed 133 percent during 2003. Implementing a communications platform based on client-server architecture eliminates these threats, and ensures security and reliability throughout the system.

The ease and speed at which people are able to communicate and share information is essential to the engineering and architecture business where collaboration is a constant and necessary part of each project. For EYP, having a high-quality instant messaging and file sharing system in place improved their productivity dramatically. Traditionally, the design and construction industry has been conservative when it comes to change, but this may be a technology worth looking at when the results are so dramatic.▪

Matthew Hunt is the chief technology officer for Omnipod, Inc., a New York-based firm that provides a highly secure communications platform, integrating enterprise instant messaging and file sharing technology. He can be reached at matt@omnipod.com.