Collaboration 2.0

Now we can put all of the information from the last three chapters together to form a picture of what collaboration 2.0 is all about. With the concepts of collaboration from chapter 2 and the idea of cloud computing from chapter 3, we can examine the specifics of what collaboration in the cloud can do for an organization.

Distance

One of the benefits of collaborating using Web 2.0 services is that it does not matter where in the world a collaborator is working—everyone can access and contribute equally. Web 2.0 collaboration will work for a small group within a single organization or a large project team spread around the world. All of the data, the methods of creating project deliverables—reports, articles, presentations, pictures, or other media—in support of your project, and editing or collaborating tools are available twenty-four hours a day, seven days a week online. What Web 2.0 brings to the equation is the ability to use many different channels of communication in your collaborative efforts. Built-in instant messaging, bulletin boards, comment "walls," and other methods of communication are easy to install and use in most Web 2.0 services.

This communication infrastructure, along with the always-on nature of the Internet, removes the need for team members to be physically close to one another. It also removes the need for expensive long-distance conference calls and delivery services. All of the data is available to all of the team members all of the time, and people can work when and where it suits them. This ability to work without regard to distance means that project managers can choose the best possible members for a team, not just the ones who are physically closest.

Asynchronous Communication

Along with its ability to eliminate the constraints of distance between collaborators, Web 2.0 communication and collaboration channels can also reduce some of the problems associated with having collaborators in multiple time zones. Many of the services that will be profiled in this report include asynchronous communication channels. Asynchronous communication is defined by Dictionary.com as instances of communication that are "not occurring at the same time."[1]

According to the Wikipedia entry on collaborative editing, "Such asynchronous (non-simultaneous) contributions are very efficient in time, as group members need not assemble in order to work together."[2] The important part of that explanation is the fact that asynchronous communication is nonsimultaneous. It happens at a time that is convenient to the members of the groups as individuals.

Prominent examples of asynchronous communication channels include Facebook's "Wall" feature, which allows people to post information for others to read later (see figure 4), or Ning's message boards, or even a decidedly Web 1.0 tool—e-mail. There is a feature in the Delicious bookmarking service that allows users to send a link to someone in their network. This is another example of asynchronous communication—that link will be available whenever your teammate is ready to take a look at it. Blog

posts and comments can also be considered asynchronous communication—anything that allows people to read and reflect on the information before acting on or responding to it works as an asynchronous communication channel.

The library staff at California State University at Fullerton has created a wiki that they are using to track and manage their implementation of the Verse e-resource management system. The wiki is an excellent example of how collaborative tools allow a project to run smoothly with collaborators communicating asynchronously. It gives people a place to store information, comments, and concerns that are raised during the implementation procedure. Heather Tunender, the electronic resources librarian at the California State University, created the wiki because she had noticed that some staff members were using digital files to keep track of the process, but that these files were not necessarily available to everyone who might need them. By encouraging staff to use the wiki, all of the documents are now available whenever they are needed and can be accessed, edited, commented on, and discussed without concern as to when the material was created or whether the creator is online or available to discuss the issue at that time.

Figure 4
The Facebook Wall—an excellent example of online asynchronous communication.

Synchronous Communication

Synchronous is defined by Dictionary.com as "occurring at the same time . . . simultaneous."[3] Synchronous communication channels are those that allow instantaneous communication between two or more people, like chat rooms, instant messaging, and phone conversations. These channels are most effective when users are in the same or close time zones and are working at the same time. Instant messaging can be through a dedicated IM client like Meebo or through a built-in service in another tool like Facebook's recently released IM client. While most IM chats can be archived and saved, the chat is most effective when at least a couple of people are there to share information and ideas in real time. Unlike some of the hybrid tools like Twitter or FriendFeed, where the conversation can either be instantaneous or delayed depending on who is available, IM requires a set time, a set location (or IM client), and a commitment to discussing the project. With Twitter, you can post a question that can be answered within five seconds or five days—all posts on Twitter are archived so that people can find them later. Twitter assumes that conversations are happening real time, but that is not required.

> *Meebo*
> www.meebo.com

Jean Hewlett of the University of San Francisco and J. J. Jacobson of Jstor are currently putting synchronous communication to good use in their planning of workshops for the virtual world Second Life. Phone meeting are arranged via Skype, a Voice over Internet Protocol (VoIP) voice-chatting application, and the collaborators use a Google Docs document as a real-time whiteboard that both of them can edit while they are talking via Skype (figure 5). In this case, to work effectively, they both have to be present on the Skype call and in the Google Docs application at the same time (though of course, they can be half a world away from one another in actual physical location).

Distributed Computing

Distributed computing is another term that is used almost interchangeably with *cloud computing*. Wikipedia describes the concept: "In distributed computing a program is split up into parts that run simultaneously on multiple computers communicating over a network."[4] This program can be something like the SETI search for extraterrestrials with the SETI@home project or a Google

Docs document that is running on several different client computers as a team works collaboratively on creating and editing the content. The distribution of the work–in the case of the Google Docs document, the writing or editing of content–among team members who may be both physically separated and working on the document at completely different times makes collaboration 2.0 much easier for teams than it was with previous collaboration platforms. Pretty much any application that is browser-based and uses at least one central server to hold the information can be distributed computing–including Flickr, Facebook, wikis, or online office suites.

Figure 5
Skype, a Voice over Internet Protocol (VoIP) application that allows voice communication in real time.

Benefits

Putting all of this together–the ability to work together at a distance, the benefits of asynchronous communication and distributed computing provided by applications in the cloud–gives an organization the ability to work together without regard for physical distance or time zone issues. The Web 2.0 services that are profiled in the next chapter give users the ability to store, create, or edit documents "in the cloud," and all of them offer multiple communication channels that team members can use to keep in touch during the collaborative process.

Notes

1. "Asynchronous," Dictionary.com, *Dictionary.com Unabridged (v 1.1)*, Random House, http://dictionary.reference.com/browse/Asynchronous (accessed March 17, 2009).
2. "Collaborative Editing," Wikipedia, http://en.wikipedia.org/wiki/Collaborative_editing (accessed Nov. 22, 2008).
3. "Synchronous," Dictionary.com, *Dictionary.com Unabridged (v 1.1)*, Random House, http://dictionary.reference.com/browse/synchronous (accessed March 17, 2009).
4. "Distributed Computing," Wikipedia, http://en.wikipedia.org/wiki/Distributed_Computing (accessed Nov. 22, 2008).