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UC End User Productivity Study

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1 Unified Communications and End User Productivity

Unified Communications (UC) has been helping workers and companies around the globe better communicate, work more efficiently, and become more productive. The use of UC impacts individual workers, teams or workgroups, and companies as a whole.

Although a relatively new market, unified communications has been implemented by early adopters that understand the benefits it provides to individual workers and how it helps companies optimize their business processes. UCStrategies.com defines Unified Communications as “Communications integrated to optimize business processes”. UC integrates real-time communications (such as voice or telephony) and non-real time communications (such as messaging) with business processes and requirements based on presence capabilities, thus presenting a consistent unified user interface and experience across multiple devices and media types.

The UCStrategies.com team defines two types of UC solutions and benefits under the “UC Umbrella” - those that focus on the end user and end user productivity (UC-U) and those that focus on the business and business processes (UC-B). UC-U provides benefits to individual users, while UC-B provides benefits to the enterprise as a whole. The goal of both types is to “optimize business processes.” UC-B processes are key business activities and, if accomplished successfully, produce changes that are significant and measurable, readily tracked for return on investment (ROI) cases. Due to the individuality and granularity of end user processes, UC-U is usually hard to measure and aggregate into ROI cases. Although measuring hard ROI in the user productivity segment is much more difficult, it is still clear that there are significant benefits to workers and enterprises that have implemented UC-U solutions: many enterprises have begun a UC implementation by starting with user productivity elements, focusing on how UC impacts individual users and teams or workgroups, and reaping significant benefits from the personal or user productivity aspect of UC. While there is much greater ROI potential impact from UC-B, particularly when integrating UC with business processes and applications, resulting in communication-enabled business processes, or CEBP, there is also a need to identify the value provided by UC on user or personal productivity.

In the second quarter of 2008, Blair Pleasant and Nancy Jamison of the UCStrategies.com team conducted a UC end user productivity study, focusing on how end users use UC and how it impacts their productivity. Rather than targeting the IT managers who are responsible for implementing and running the UC systems and asking them what they felt the impacts of UC were, we surveyed and interviewed the real end users who use UC to find out how, or even if, UC is helping them be more productive and effective in their day-to-day jobs. For the purpose of the study we inquired only about UC features and functions. We were not looking at CEBP or specific business process integration (such as integrating UC into a CRM or ERP application, for example). In the cases where we spoke with IT staff, it was as individual end users of UC to see how they use UC in their jobs.

The study focused on four different job types - executive/management, operations (including engineering and IT), sales and marketing, and back office operations, particularly human

resources. The results of our survey, along with selected individual responses from users follow.

2 UC-User Productivity – How UC Impacts the User: Background

UC-U provides and integrates communication capabilities such as collaboration, messaging, call control, click-to-call, instant messaging (IM), and mobility, etc., and ties these capabilities in with presence and a unified user interface. Click-to-call or click-to-connect is the most common instance of UC-U, enabling users to simply click on a name or telephone number to place the call. An individual can view a colleague's name on their UC client, view their online and telephony presence status (available, in a meeting, away, busy, etc.), and click on the colleague's name to initiate a phone call, or even a video call or interactive conference session with application sharing. Alternatively, a user can click on a phone number that is embedded in a document, for example, to initiate a call.

The personal productivity benefits of UC help workers to be more efficient and effective at doing their jobs, and can provide increased worker satisfaction by providing users with tools to help them do their jobs better. Using unified communications, individuals can more easily and quickly select the most effective and efficient means to initiate, receive, and respond to business communications. For example, by being able to simply click on a person's name on their PC screen and be connected via IM or a voice call without having to leave the application they were working in, communications becomes significantly faster and easier. The use of presence makes it easier to determine someone's availability to communicate, and what the best method is (IM, phone, mobile phone, etc.), helping workers save time and be more efficient.

Another aspect of user productivity is work group or team productivity. UC-enabled workgroups can interact and collaborate more effectively, leading to faster development time, quicker time to market, and better and faster decision making – all impacting the bottom line. Workgroups can work more effectively together as distributed "virtual teams," efficiently communicating and sharing information. Collaborative UC tools impacting user productivity include audio, video, and web conferencing, file sharing, application sharing, "whiteboarding," and so on. The ability to initiate ad hoc or spontaneous audio, web, or video conferences with the appropriate people simply by dragging and dropping an individual's name into a "conference room" or by clicking on someone's name and selecting "video chat" from the drop down menu, makes it much easier for groups to work together.

2.1 Measuring the Impact – Not an Easy Job

While personal productivity benefits are important, they are generally difficult to measure and quantify. For example, when we asked respondents to quantify their productivity or amount of time saved by using certain UC features, we repeatedly heard that it would be difficult for them to do so. In cases where they did try, their responses ranged from saying they saved 20 minutes to over an hour per day. They were clear that UC makes them more efficient at doing their jobs, but the way in which this directly impacts the bottom line was not always clear.

There have been several attempts to quantify and measure the ROI from the business process side of UC, which can be measured in terms of speeding up business processes, such as the number of insurance claims that can be processed, or how quickly workers can respond to an inventory shortage or production delay. However, it is more difficult to measure the revenue impact on organizations deploying UC based on the user or personal productivity aspect of using certain features.

2.2 UC Impact Areas

There are several ways in which UC technologies impact users. Some are for internal users, and some are for external users.

For internal users (or contact recipients), the primary uses of UC include:

- **Personal Call or Contact Management:** includes call screening, forwarding of calls to another number, on-screen directory dialing, and full control of phone features from the PC screen and GUI; these may use profiles and rules.
- **Mobile Access and “Virtuality”:** extends UC capabilities to mobile devices, allowing mobile workers to have the same communication tools as when they are in their office, regardless of location.
- **Team or Workgroup Collaboration:** provides workers and workgroups the ability to work together as a virtual team; includes audio/video/web conferencing, file sharing, and application sharing, and other collaboration tools.

For external users (or contact initiators), the primary uses are:

- **Contact Management:** improves access to appropriate people and resources
- **Call or Contact Routing:** makes it easier for callers or other contact initiators to locate and connect to individuals within an organization; may include single number reach, find me/follow me, etc.
- **Access to mobile personnel:** enables callers or contact initiators to reach someone when they are out of the office
- **Expert Assistant:** assists callers or contact initiators in accessing the appropriate resources or subject matter experts required to answer an inquiry or to provide information.

When we look at ROI - or how the use of a technology helps organizations and impacts the bottom line - the key areas to examine are: reduced costs (cost savings) and increased revenue (for example, based on additional or faster sales), and customer satisfaction, retention, and loyalty, as this, almost always has long-term bottom line impact. Most UC ROI studies have focused on how UC helps increase revenues and decrease costs, but it is difficult to measure the direct impact of UC's productivity tools and enhancements on ROI. Therefore we need to look at other ways of viewing the benefits or impact of UC.

The best way to do this is to identify the ways in which UC helps workers perform their jobs better. This will be different for everyone based on their role in the company. For example, a sales rep has a very different role than a human resources manager, and the way they use UC and the way that it helps them will be very different as well. Rather than looking at how much time UC may save them in doing their job, it is more important to look at how UC helps them do their jobs better and more effectively. In some cases, such as for the sales rep or technical support personnel, the ROI can be calculated. For others, such as human resources

representatives or marketing managers, it is less about ROI and more about job performance effectiveness. In cases such as human resources representatives, for example, the impact of UC primarily impacts the company's employees and it is difficult to measure if there is any impact on the bottom line.

3 Survey Findings

As with any survey, certain recurring themes emerged from our interviews, including:

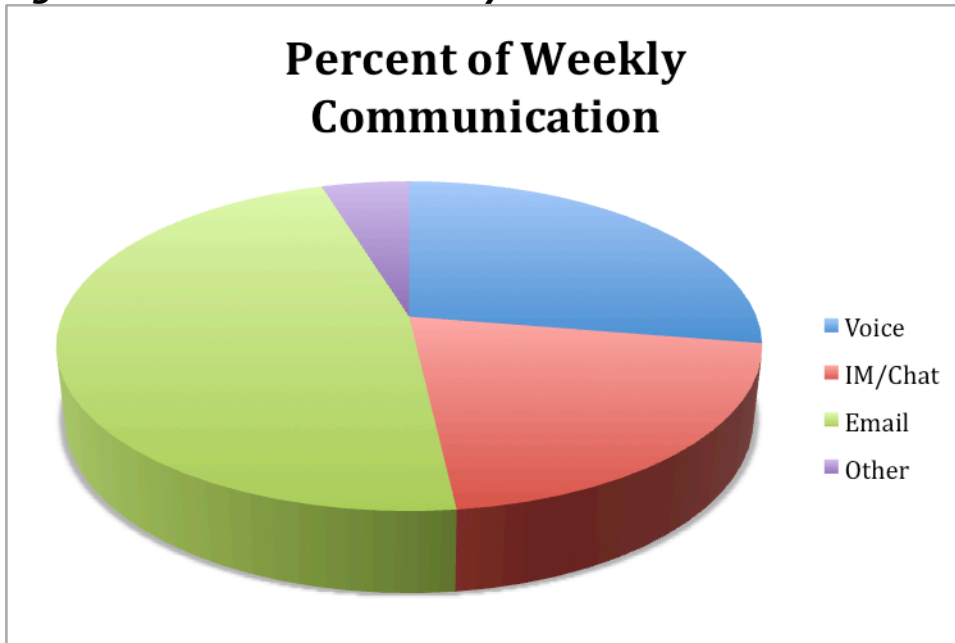
- Voice is still critical. Despite prognostications that voice communications will go away as text or instant messaging become the primary way in which we communicate, voice communications and telephony continues to play a vital role in the way we work and get our jobs done, and is a crucial element of a UC solution.
- IM is useful for a quick comment or question, but not for lengthy discussions or conversations.
- The most valuable UC functions or capabilities for user productivity in terms of workers being more effective and productive are the use of presence, IM, and conferencing/collaboration. The ability to do "click to call" is useful, but does not significantly impact the way in which work gets done.
- While people save time using click-to-call and click-to-conference, the time savings are not what is important: those capabilities are valuable, but do not provide the real value of UC.
- The real value of UC is in having access to the people and the resources needed in order to do one's job more efficiently.
- UC changes the way in which people work, enabling them to be more responsive, save time, and find the right resources more quickly and easily.
- Everyone interviewed either always or often check a contact's presence status before calling them instead of wasting time blindly leaving a voice message if the person is not available, although they may still chose to do so.
- More end-user training is needed to educate users about their UC system's features and capabilities. For example, most end users did not use rules for filtering their incoming calls and in some cases did not know the capability exists.
- UC enables individuals and workgroups to better collaborate and work better as a virtual team.
- Without exception, if you took UC away from the end user once they were accustomed to using it, they would "pitch a fit". Once an end user saw the value in the UC features, they did not know how they lived without it.

3.1 UC Capability Usage

Each study participant was asked, "What percent of your weekly communication is spent on voice/telephony, IM/chat, email, and other?" The average amount of time spent on email was 47%, followed by voice/telephony at over 27%, and IM/chat with 20% (see Figure 1). Several respondents noted that the volume of email is by far the largest, although they spend more time talking on the phone when they are in a voice conversation, as emails are not as lengthy. The

same is true for IM - while the number of IM sessions or messages is greatly increasing, the duration of the IM sessions are generally very brief.

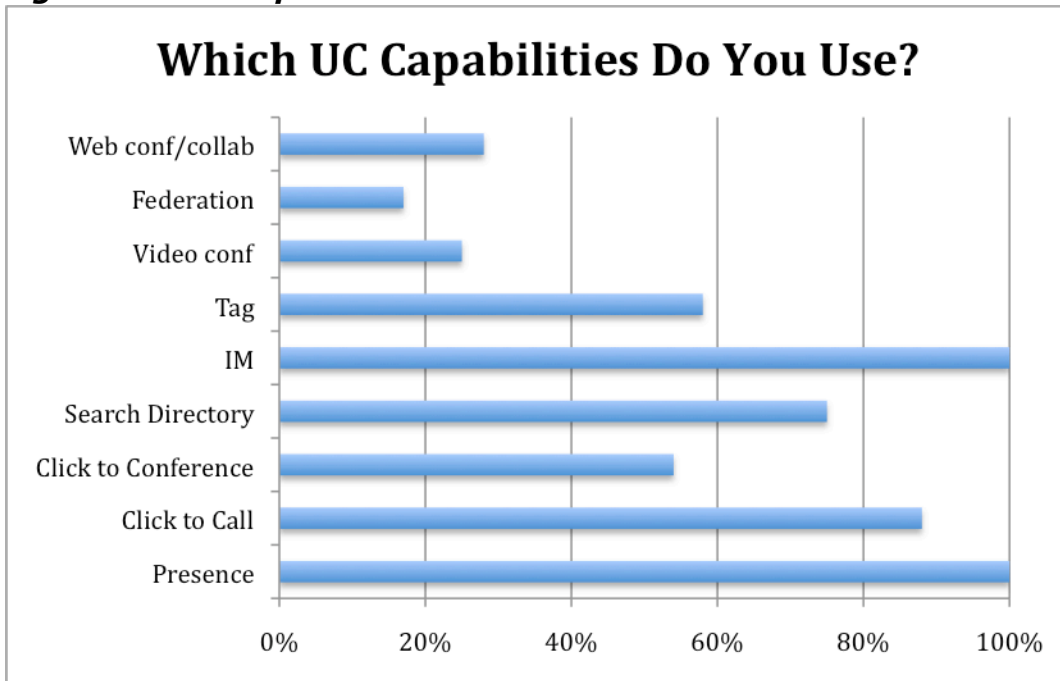
Figure 1 – Breakout of Weekly Communications



Source: UCStrategies.com (May 2008)

Survey respondents were also asked which UC capabilities they use. As shown in Figure 2, the most widely-used capabilities are Instant Messaging and Presence, which are each used by 100% of the respondents, followed by click-to-call (88%).

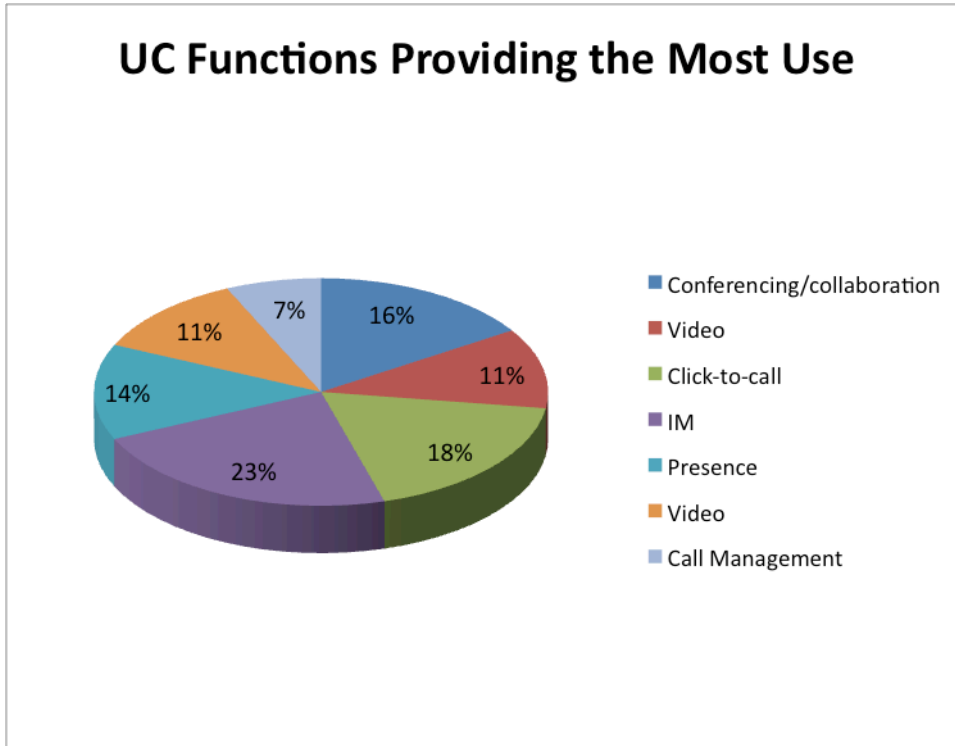
Figure 2 – UC Capabilities Used



Source: UCStrategies.com (May 2008)

The survey asked the respondents which UC features or functions are the most useful. As shown in Figure 3, the functions that UC users believe provides them with the most value are Instant Messaging, click-to-call, conferencing/collaboration, and presence.

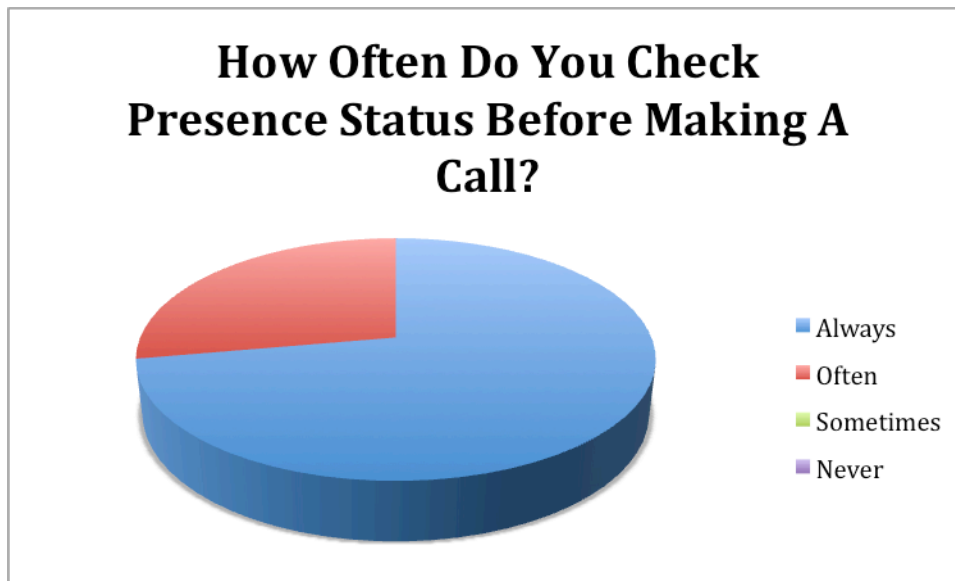
Figure 3 – The Most Useful UC Functions



Source: UCStrategies.com (May 2008)

The survey asked how often users check a contact's presence status before calling them instead of wasting time leaving a voice message if the person is not available. As shown in Figure 4, 100% of the survey respondents check presence status - 72.2% of the respondents always check presence status before making a call, and 27.8% often check presence status.

Figure 4 – Frequency of Checking Presence Status Before Making Call



Source: UCStrategies.com (May 2008)

3.2 Voice – It’s Not Dead Yet

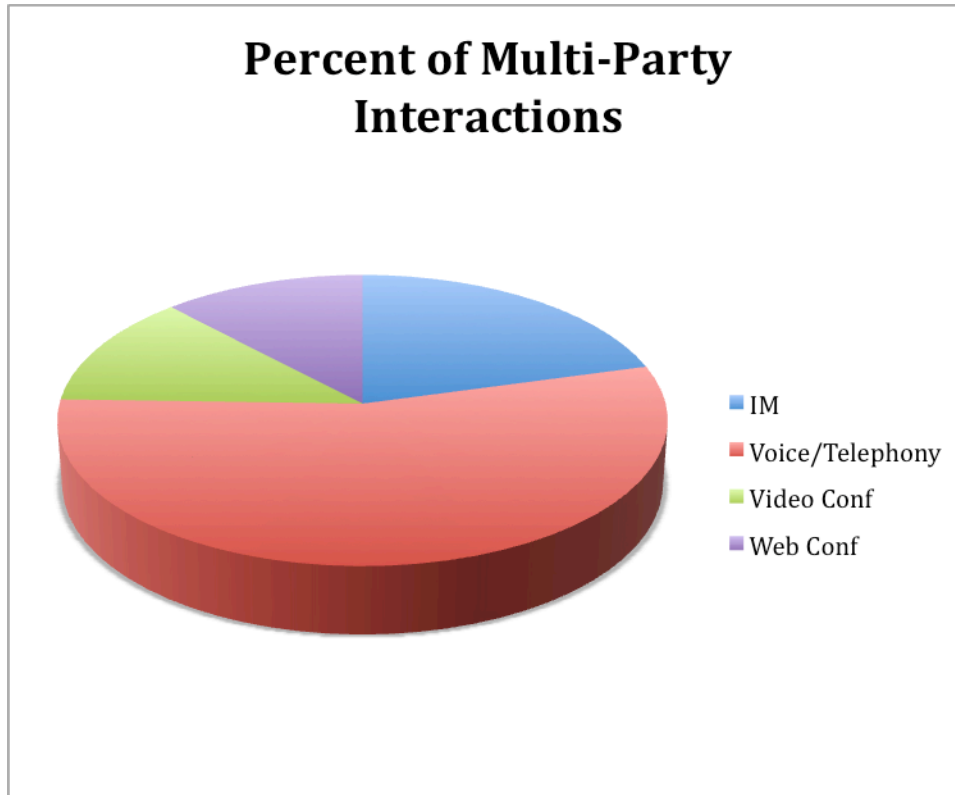
Even though many UC users rely on IM as their primary means of interaction, our respondents generally used it for a quick comment, question, or clarification, and not for in-depth discussions, with some notable exceptions. For lengthy or in-depth interactions, end users generally escalate IM sessions to a voice call. 84% of the respondents indicated that IM interactions turn into or are escalated to voice or telephone interactions at least once or twice a week, with 17% of the respondents saying that this happens at least three to four times a day, and 13% saying that this happens even more frequently.

Most respondents agree that IM is fine for quick questions or discussions, but “When the topic gets more complex, we pick up the phone.” One respondent noted, “In some ways IM replaces email, but if I am looking to discuss something in detail, it’s always voice.” The lone exception seemed to be engineers or technical support personnel, who pass information back and forth as they work through IM, sometimes with multiple chat windows open, particularly if they are in areas such as machine rooms where they may not have cellular or wireless phone support.

In general, however, respondents agreed that voice is still a crucial part of the day, even if they use IM quite a bit, and in some instances had learned interesting ways to be more productive by combining the two. For example, many respondents said that they use IM after checking presence to see if the person wants to talk or if it is a good time to talk. One respondent, noted that he texts a quick “YT” for “You There?” to initiate a quick response as to whether it is a convenient time to talk, and if so, he places the call.

Multi-party interactions are different from one-to-one interactions. As Figure 5 shows, voice/telephony is by far the mode used most frequently for multi-party interactions, with over 57% of multi-party interactions taking place via the phone (i.e.; audio conferencing). The use of IM is next, with the use of web and video conferencing currently lagging behind.

Figure 5 – Multi-Party Interactions



Source: UCStrategies.com (May 2008)

Just as we asked respondents how often does an IM result in a phone call, we also asked them how often does an IM with one or more people result in a conference call. 40% of respondents said never, and 20% said once or twice a week. Their reasoning is the same as for a single voice call. IM is not used for serious conversations, and if they have an issue that involves more than one person, then they initiate a conference call on its own. In addition, many of the respondents noted that they generally have conference calls set up in advance, and do not do many spontaneously. However, many will back the conference call up with a behind the scenes IM session with people on the call; a “back channel” as one person put it.

3.3 The Growing Value of Video

Though we did not single out every UC feature in our survey, surprisingly, we received numerous comments on the value of video, even if most respondents are just starting to use it. Those that had implemented video as part of their UC solution found that it helped to build relationships, to work better as a virtual team, and to cut down on the time and expense of business travel. Specific comments included:

-
- “The video was most surprising. It is better quality than I expected, easier to use, and really makes a difference in relationships.”
 - “Not only can remote people interact with people in the main office, we all get to see them. People joke and around more and build relationships faster with remote people thanks to video conferencing. Also all of our company meetings are recorded now so people who missed can go back and watch the meeting (And fast forward through the dull parts!).”
 - “Video has made remote people seem more a part of the team and I feel closer to them.”
 - “Ever since we put in video conferencing, I’ve used it a lot more. It cut my travel in half and I’m much happier.”
 - “Videoconferencing lets us reduce the amount of time spent on planes, and we can accomplish some of the same benefits by doing videoconferencing and saving a tremendous amount of money.”
 - “For me the video component will be massive. Often times, especially if I’m talking with my staff, the face-to-face communications is so important in building manager-employee relationship. IMs and emails can get misconstrued, as can voice messages. Visual communication is 60% of the message. For building trust and camaraderie with my team, video will be key.”
 - “We have video conferencing which saves wear and tear from traveling. It makes my distributed teams more efficient.”

3.4 The Impact of UC on Productivity

We asked our interviewees questions about the impact of UC on their productivity including whether or not UC made them more productive, and how UC helped them achieve their business goals. When asked, “Do you feel that UC features have changed the way that you work,” 100% of the respondents said “Yes.” Specific comments included:

- “UC has enabled me to speed things up since I can get answers faster, and I’m less frustrated.”
- “If I have a thought, I can go to my UC client, type in a couple letters and a person’s name comes up and I can click-to-call them right away. I can get in touch with someone right away and keep things moving - there is a continuous flow.”

From the survey responses, we identified several ways that UC helps workers:

- More effective contact management
- Better problem resolution
- Increased responsiveness
- Faster decision making
- Greater access to experts and resources
- Accelerated collaboration
- Enhanced mobility
- Reduced travel

The following quotes are representative of the impact UC has had in each of those areas.

3.4.1 More Effective Contact Management

UC makes it easier for contact initiators and recipients to manage their interactions. For outgoing contact management, the study found that UC users appreciate being able to use click-to-call capabilities that make it easier to see someone's availability and decide how best to contact them – i.e.; via an IM or calling someone on their desk phone or mobile device, making it more likely that they will reach the person they are trying to connect with and get their questions answered and work accomplished.

For incoming contact management, respondents said that they can see who a call is coming from and either answer the call appropriately or take some other action such as forwarding it to voice mail or an assistant. The study also found that the number of voice mail messages left and received can be reduced up to as much as 80% in some cases, as users check presence before placing a call. While it is difficult to place a number on how this impacts the bottom line, it is clear that these UC capabilities make workers more accessible and available when necessary. Specific comments included:

- “If I’m in email, I can initiate communication with that person from within Outlook, rather than switching contexts, even if I’m remote.”
- “I can see that a call is coming from Hank’s Hardware 555-555-1111 and answer the call appropriately or at least have some expectations of who is on the other end of the call.”
- “I don’t have to worry about what device someone is using – I can just click on their name and the system finds them.”
- “We can contact a person, not call a number. Someone may have different devices and you have a better chance of contacting them.”
- “People know when I’m in and out of the office and how to contact me.”
- “Because colleagues can always find me, there is less and less voicemail. People know how to contact me so I don’t get an email and then a voicemail, etc.”
- “It’s very rare that I play phone tag because I can check status. And when the phone rings, I know who’s calling before I pick up the phone. Sometimes I’ll forward the call to a different phone if it’s a call that I really want to take.”
- “I have about 30 employees I need to interact with each day and can do that more easily. Before, to figure out the right mode to contact someone was hard – do I email someone, call them, etc.? Now I start with chat and I know how to get hold of someone.”
- “The game changing feature is presence and knowing what the status of the person is before I interact with them – it’s very useful in choosing which tool to use to contact them.”
- “Using click-to-call is handy because I don’t have to figure out the country code of someone – I can just look them up in a buddy list and call them. I have an Asia Pacific market role with lots of different country codes, so it’s handy to just click to call.”
- “My ability to reach someone on first attempt is now 70% instead of 30% like in the past.”

3.4.2 Better Problem Resolution

UC helps users resolve problems more quickly, as people can get immediate notification of issues, and can quickly and easily communicate and collaborate with other people who can provide input and help solve the problem. One respondent to the study noted that, “A few months ago I was at a conference and received a call on my mobile phone from a partner. A

customer had a support issue and had not received a call back from our support line, so he called the partner who got me on my mobile phone. I logged into Office Communicator on my mobile phone and saw that a person at my company who could help the customer was online and available, so I started an IM session with him, explained the problem, and he was able to quickly solve the problem.

The ability for UC to help workers resolve problems quickly directly impacts the bottom line. As one UC user noted, “We don’t have delays that would contribute to product being out of stock, which is a cost savings.” There are countless situations where the ability to get instant notification of issues can save companies time and money, while keeping customers satisfied. One CEO stated, “There’s drama every day that gets resolved much quicker – there are at least ten instances a day where an IM or chat allows us to get issues and questions addressed and resolved that we weren’t able to do before.” Others said:

- “I can resolve questions coming in or questions I have while I’m on the phone with others. I can get an answer I need instantaneously.”
- “One of my store managers was able to IM the head of store operations about a network problem in the store, who contacted the right person to solve the problem before there was even time to call the internal help desk.”
- “Being able to find help for our customers’ issues and escalate problems to the right person has been critical. Being able to find people to solve problems has impacted our overall delivery to clients.”
- “We can brainstorm ideas or bounce ideas off of people more easily. We can resolve things more quickly.”

3.4.3 Increased Responsiveness

Similar to problem resolution, the ability of UC to help workers be more responsive also directly impacts the bottom line while enhancing customer satisfaction. It helps forge relationships with customers while providing a competitive edge. One survey respondent noted, “Customers can see if I’m available and IM me, and we can launch web meetings and immediately address their concerns, giving them faster customer response time. I can be linked directly to customers and have direct access, which my competitors don’t have. Customers feel they can easily reach me and collaborate with me.” The result is better customer relationships. Another respondent noted, “It’s easier for me to get people answers, communicate, and get in and out of live meetings.”

Increased responsiveness impacts both internal and external communications. The study found that workers can be more available to workgroup or team members, as well as people outside the company, making them better able to deal with issues when they come up, and to respond to questions faster. For instance, one marketing person responsible for PR for her company noted that, “When a reporter with an instant deadline contacts me, I can get information quickly and respond to them. This has made me become the ‘go-to person’ for many of those reporters. They tell me that I have the best ability to turn things around instantly.” She felt that the ability to get reporters information quickly gave her a competitive edge over other companies in that reporters would come to her first. Another survey respondent noted, “There have been countless times when I’ve been on the phone with someone and I don’t have the answer but I can ping someone who has the answer. Instead of saying ‘let me call you back’ and then research the information, I can see who is available and get the answer immediately.” One sales

engineer said, “Instead of exchanging three or four emails, I can use IM and get information in a few minutes instead of waiting eight hours or more for a response to my email.” This can make the difference between winning or losing a sale. Additional comments included:

- “I’m more available to people on my team.”
- “We have quicker project turnaround dates based on having more real-time research and results based on the research. We have weekly calls to discuss project status and I can use IM to directly inquire with the product manager on active projects and get real-time responses.”
- “It’s allowed my team to make decisions faster. They’ve been able to collaborate better.”
- “When there’s an issue I can see what resources and personnel are available and grab the people I need instead of playing phone tag or sending email. I can respond immediately to help the customer.”
- “I can eliminate the lag time of getting information or answers from partners or internally. We don’t have the dead time anymore.”
- “It’s eliminated a lot of waiting for answers or information or to get hold of someone. Before we implemented this I could get things done, but not efficiently. I had to rely on old school technology - voice mail, email, etc. Now, because I can collaborate with people in real time, I can get a resolution faster.”

3.4.4 Faster Decision Making

UC helps users resolve problems more quickly, as workers can get immediate notification when issues arise, and can quickly and easily communicate and collaborate with other people who can provide input and help solve the problem. One respondent noted that, “A few months ago I was at a conference and received a call on my mobile phone from a partner. A customer had a support issue and had not received a call back from our support line, so he called the partner who got me on my mobile phone. I logged into Office Communicator on my mobile phone and saw that a person at my company who could help the customer was online and available, so I started an IM session with him, explained the problem, and he was able to quickly solve the problem.” The CEO of a company stated, “One problem in particular was solved in minutes, when it would have taken hours before I started using UC.” One marketing manager responding to the survey stated, “It’s allowed my team to make decisions faster. We’ve been able to collaborate better.” The result for that user and her team was faster time to market for their product, increasing the company’s revenues. An HR manager noted, “We hired someone who we interviewed via videoconference - that saved about a month in terms of the interview cycle,” which saved the company time and money.

3.4.5 Accessing Experts and Resources

UC makes it possible to find specific individuals or a needed subject matter expert. This is useful in all areas of the business, helping workers get the information they need when they need it. One user noted, “I can go online and tap into the subject matter experts needed and set up an ad hoc conference call. I can get information instantly by contacting an expert.” Another said, “We have a pool of people to get product answers from and when I need to get information for a customer I can look at the pool and see who is available.”

This clearly makes workers more productive and efficient. For example, one user noted, “We had a global customer calling in who only spoke Chinese, and since we set up skills by language, along with hours they’re available, we were able to get them to the right person.” Others noted:

- “In my role in marketing, I need to tap into experts in the organization for critical issues, and there are lots of times I need information urgently. The ability to reach a person through an appropriate mode of communication is really powerful. I can get the person I need whether they’re remote or local.”
- “We set up the system so people in the IT department are in one group, operations in another, etc. so you don’t have to know the specific individuals you need, and you just look for someone in a group. One of my store managers was trying to get hold of a buyer and tried to reach a specific buyer who wasn’t there, but was able to get connected to the person who worked with him based on the way the system was set up.”
- “Our people can take a call from someone and when they need information from a subject matter expert they can IM them and get the information needed, or send the call to someone else to solve the problem right away.”

3.4.6 Collaboration Acceleration

The area of collaboration provided many productivity benefits, according to the users surveyed. The ability to share documents while having real-time voice interactions not only greatly reduced the time to work on a project, but allowed for consensus between groups and individuals with less misunderstanding.

With collaboration tools and document sharing, workers don’t have to pass files back and forth with each other which create different versions and slows down the process. Instead, they can work on the same document or file at the same time. Respondents stated: “We have to put together a presentation with a video and have a conference call about it. Instead of sending out the huge presentation to everyone, we can share it online and edit it in real time. We can make changes together and do work on it at the same time,” and “We can work in a collaborative manner and work on the same document at the same time and we can produce better things faster. It helps keep costs down.” Another respondent added, “It is great in RFP responses because you get people together at the same time on a web conference, and you can make changes to a spreadsheet or something else and gain consensus. This was especially true globally. You can send emails until the cows come home, but with the time differences, getting things done is difficult. The ability to get information from people together and make changes in real-time is spectacular.”

UC also helped teams work together better. For example, “I manage a team with three remote employees. Because I can see their status, I can call them, conference them, chat with them, etc. just like they were sitting here in my office. This is a huge time saver. When everyone looks like they are all together and is able to communicate like they are all together, then the team truly works together.” Another respondent said, “I can drag and drop a file into the system while having a conversation with someone so we can share a file and work on it together.”

An additional side benefit is reduced costs, as respondents noted: “There’ve been multiple times when I’m working on a document or spreadsheet with someone from another office and

we can fire up UC and work on the document together in real time. It's reduced my travel, which is a big productivity help." Others said:

- "Everyone on my team or in the company is readily available - it's so much easier to contact someone this way."
- "With collaboration, I have the full experience - both visually through video and being able to collaborate on documents or do whiteboarding and the audio component so you get the rich experience of face-to-face meetings regardless of where you're at. In the past we had to schedule a time and a room, and getting people together was difficult. Now it's much easier and you can quickly meet and bang out a solution."
- "The ability to share spreadsheets on demand without having to email them back and forth is great. I can say 'let me just show it to you' and it's click, click, done. That changes behavior and eliminates the emailing of multi-megabyte files."

3.4.7 Remote Access to Individuals

UC capabilities give end users access to individuals they need to interact with in order to get work done, which prior to UC was often problematic. Functions such as IM and presence help users leap over barriers such as geographically dispersed work groups and time zones. Users commented:

- "I can be in touch with people I work with who may work different hours than I do. This helps my reaction time."
- "My customers are international and UC helps me in geographic regions where I can see presence of colleagues and I can call them or ping them regardless of time zone if I see they're available."
- "We have an offshore team and there is a greater flow of communication when we know someone is online at odd hours. If I see that that folks in India and China are online when I log in, I can take advantage of that."

UC also allowed users to see the presence status of remote subject matter experts that they might need to conference into a call.

3.4.8 Mobile Access

Mobile access via UC provides workers with the ability to use the same communication tools they use in the office when they are remote; traveling, telecommuting, or working away from the office. With mobile UC capabilities, calls and IM messages can be automatically routed to the user's mobile device, enabling workers to be connected anywhere, anytime. The ability for workers to be productive and effective regardless of location was clearly reflected by comments such as:

- "I can live in different parts of the world and do my work. It's enabled me to be with my family when they live in other places around the world."
- "If someone calls my office, the system also calls my cell phone so I can always be reached."
- "When I'm meeting with a customer, I can check presence via my Windows Mobile device and know who back in the office might be able to answer a question."
- "I have remote hard phones at home and if there's a trouble issue on the weekend, I can set up a conference call from my home."

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- “I can forward my phone from my office to my mobile phone – if I’m out of the office for a meeting I can hit ‘forward’ and it’s seamless to the people calling me, which is very valuable. I don’t know how to forward my phone, but using UC it’s easy.”

3.4.9 Reduction in Travel, Plus Time or Cost Savings

UC capabilities, particularly conferencing and collaboration, make it easier for workers to interact with colleagues, customers, partners, etc., eliminating the amount of travel needed, which saves time and money. Workers do not have to spend as much time in planes, trains, and automobiles, and instead can spend that time performing their jobs.

- “We allow most employees to work from home and UC has enabled this. Prior to UC I wouldn’t have considered it. I have a 90-minute round trip commute. I work from home two times a week, so that’s three hours of productivity I’ve gained by not sitting in a car. You add that up and you’re talking about weeks of productivity increases in a year. And I use those hours to work – we’re a 24 by 7 operation, so I use them. If you assume everyone has a similar commute (45 minutes each way), if you give those hours back to the employees and they use them for work, that’s saved 12 full time employees. At our rate, that’s over \$1 million/year. It’s debatable if all those hours would be used, though.”
- “Setting up a conference bridge took five minutes once you realized you needed one. Now I can save at least five minutes per conference, and I have at least five conference calls a day, so it saves about 25 minutes a day. Without UC I’d spend a lot of time tracking people down by phone and scheduling conference rooms, which are always booked.”
- “I can do product demos through web conferencing instead of flying to Europe or Asia. Since using UC, I’ve cut back on my travels by 30%, which is all international, so it’s expensive and takes a lot of time.”
- “Web conferencing has saved me a lot of travel time to various buildings in our company.”
- “When I took over marketing I was flying every month to see members of my staff. I have a distributed work force and have people in various states working for me, and I supervise someone in Brazil. I needed to communicate with them in a rich way. Ever since we put in video conferencing, I’ve used it a lot more. It cut my travel in half and I’m much happier.”

3.4.10 Bottom Line Impact of UC

The following table shows the direct or indirect bottom line impact on companies that implement UC. While some capabilities of UC will directly impact the bottom line, such as the ability to reduce travel expenses by using web/video conferencing, most of the capabilities will have varying degrees of impact based on the individual user and their job function or role, as discussed. For example, contact management, or the ability to more efficiently reach people by viewing their presence status and determining the best way in which to contact them, or by being able to send an IM in order to get a quick response, may be able to help a sales rep close a deal, thus increasing revenues.

Table 1 – UC Productivity Benefit Impact

UC Benefit Application	Bottom Line Impact – Direct or Indirect	Potential Results
Contact management	Indirect	<ul style="list-style-type: none"> • Get information needed quickly based on availability and presence • Increased employee satisfaction • Reduced lag time
Remote access to individuals (ability to access individuals and teams who are not in the main or same office)	Direct and Indirect	<ul style="list-style-type: none"> • Improved customer service • Reduced lag time • Increased sales • Crisis avoidance • Shorten project cycle time
Access to experts and resources	Direct and Indirect	<ul style="list-style-type: none"> • Improved customer service • Reduced lag time • Increased sales • Reduced sales cycle • Faster time to market • Faster product development cycle • Improved employee satisfaction
Collaboration	Direct and Indirect	<ul style="list-style-type: none"> • Improved employee rapport • Reduced travel • Increased sales • Improved management of workforce • Faster time to market • Reduced sales cycle • Faster product development cycle • Shorten project cycle time
Mobility (ability for individuals to work remotely and outside of the office)	Direct and Indirect	<ul style="list-style-type: none"> • Improved employee satisfaction • Ability to attract and retain critical talent • Increased sales • Reduced lag time • Crisis avoidance • Improved customer service • Shorten project cycle time

Source: UCStrategies.com (May 2008)

3.5 Job-Specific Productivity Benefits

The study also identified job-specific benefits, as well as the general way in which UC changes the way people do their jobs. The following comments were in response to questions aimed at the respondents' functional areas.

3.5.1 Human Resources:

- "I can use web conferences more to communicate information about benefits to make sure people are using their benefits appropriately, and promote health and wellness programs."
- "I have to use spreadsheets with compensation information and if I have to talk to someone about it, I can drag and drop it into the window and we can talk through it while working on it and sharing it. I don't have to email the spreadsheet to that person and wait for them to get it."
- "We can communicate to our employees in more engaging ways than in the past – we can use different media instead of just sending home letters."
- "I am a contract recruiter and I call a high number of recruits by highlighting their phone number off the resume and clicking to call. This is much more efficient than the old way."
- "It reduces interruptions because a lot of issues get resolved quickly, plus it cuts down a lot on candidates calling to ask what their status is. Because of UC I'm usually on top of the things that I need to know about the candidates' status because I can get the status from each manager more quickly."
- "UC has helped me communicate better with the HR manager and with the benefits administrator. If candidates have a question and it's urgent because an offer is hanging on the reply, then it really can be critical."

3.5.2 Sales/Sales Engineer:

- "I need to be able to explain and successfully finish a proof of concept with customers, answering technical questions. I can use IM and web collaboration to do this better."
- "During the sales cycle there are questions about functions, features, pricing, etc. With the use of IM and presence and seeing colleagues' availability, I don't have to wait until the next business day (for international sales) for a quote or information about a feature or functionality."
- "We had a competitor in an account telling a customer that we don't have a certain feature, and the customer contacted me to ask about it and I was able to get in touch with the right resource and tell the customer that we actually do have the feature, which helped us make the sale."
- "Customers who can see our presence status and do IM with us feel comfortable with us and can ask questions and get responses right away – they have access to my meeting status, etc. and feel that they can get in touch with me when they need to, which gives us a huge edge."
- "If I'm about to receive an order and the customer needs to change the terms, I can see if the finance manager is available and we can communicate via IM."
- "If you're trying to negotiate a contract, you can IM back and forth and can have confidential conversations amongst your employees via IM without having to tell the client that you have to get back to them."

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- “I have more opportunities to go out and meet with clients instead of being stuck on conference call all day.”
 - “If a sales rep needs a quote for a customer or a partner needs a quote based on a promotional discount, they can see my availability and ping me to get back to them ASAP or they can go to someone else in the team if I’m not available.”
 - “I can do product demos through videoconferencing instead of flying to Europe or Asia. I’ve been able to cut back on my travels by 30%, which saves a lot of time and money.”
 - “My sales partners can make more deals when they see my presence and that I’m available early morning or late evening since they can get the information they need.”
 - “The WebEx-conference combo to do demos and things is great. You can show features and how they work and get buy off, otherwise you are sending out documents that can be interpreted differently by different people. But if you can do it at the same time, then everyone sees the same thing and you can gain consensus.”
 - “It’s about resolving a strategy or technical issue or how to better strengthen our sales organization. I can cut the wait time substantially, meaning I can get more done in the same amount of time.”

3.5.3 Executive/Management:

- “When I’m meeting with a customer, I can check presence via my mobile device and know who back in the office or elsewhere might be able to answer a question. I bug fewer people and get my answer faster!”
- “When you’re the CEO you try to nullify issues from becoming crisis. Crisis leads to stress. I can now be proactive and be responsive to clients and partners before things escalate to crisis mode where you could lose a valuable client because they think you’re ignoring them.”
- “Problems tend to grow if you can’t deal with them right away. UC let’s me deal with a problem when it happens and saves me from headaches. I can have a chat client open on my PDA when I’m away from the office and can do my work more easily.”
- “If a competitor in another store starts selling a product before it’s supposed to be officially released, I can quickly communicate with my stores and tell them to start selling the product. I can keep an eye on my competitors and as soon as something happens I can be in touch with my stores.”
- “I have to get a lot of work done throughout each day. I don’t have the time to waste on communication delays or breakdowns. I don’t like interruptions that can be controlled and I don’t like not being able to work with my team. With UC, I don’t waste time, money or energy when I want to communicate, and I run a team that works together because it helps us communicate together.”

3.5.4 Tech Support

- “If there’s a trouble issue over the weekend, I can see who’s available and set up a conference from my home and pull people together and solve the issue without having to go into the office to do this.”
- “I was able to help a customer using desktop sharing and it saved me from traveling to the customer’s site to fix the problem.”

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- “I can have web meetings and see what’s going on in the customer’s system instead of driving to their site. I can do everything remotely. There’s been a 40% reduction in my travel time.”
 - “My job has gotten more critical and I’ve been able to increase the amount of my responsibilities without adding staff.”

3.5.5 Marketing:

- “If I’m giving a marketing pitch but need more detailed product information, I can IM someone on the spot and get the information, which makes us all look better.”
- “We had a prospect at our booth at a trade show who wanted more information about our product and wanted to get a meeting set up as soon as possible. We were able to set up a web conference with the right people who we saw were available and share a PowerPoint presentation that we pulled together on the spot.”
- “When things come up and have to be changed, instead of sending emails I can use these technologies and collapse the communications barriers.”
- “Access to people has decreased delays in answering questions and solving problems in product development.”

3.5.6 Other:

- “Presence has been a time saver for our receptionist groups. They are able to let the incoming caller know almost instantly if a team member is available or not. This reduces overhead paging, and time spent in park or hold. IM helps the receptionist groups as well since they can IM a person on the phone if the call is urgent.”
- “It reduces the time it takes to bring a budget to completion or meet a milestone. We can have a web conference and get things done so much faster.”

3.6 Other Benefits

Several respondents liken UC to email – while it’s hard to identify the time savings, it is a tool that helps you communicate better with people and perform your job better. Whether UC saves you 30 minutes a day or 3 hours is not the point – it helps workers be more productive and effective. One respondent noted, “It’s hard to quantify – I feel empowered with it – I used to feel I had to be in the office and track people down to get answers and solve problems. Now I start with chat and assuming they’re available I can ask for their time and get the answers right away. I used to do this in email and it took more time. If we need we do a click-to-call and if we need to look at a document, it’s another click and we can collaborate. I get about 10 times more done than I used to.” Another said, “It helps productivity in a subtle way from a numbers standpoint, but in the end it’s obvious that you’re getting things done more quickly.” Another noted, “I’m much more effective in being able to deal with business issues in a real time manner.”

There were other “soft” benefits of using UC identified in the study, most of which revolve around relationships between co-workers. In one case an executive stated that he has a closer working relationship with his team because of UC, particularly as his team is so geographically dispersed. He also believes in having a relationship with the direct reports of his direct reports, and that with UC he can do that simply with a quick IM or two. UC also opens up the talent pool, in that people can work remotely and still be in constant communication with their peers

and supervisors. One manager noted, "It's tough to find talent and without UC I'd be limited to the local area which doesn't have that much. With UC I can have workers located anywhere, which opens up my talent tool to the world so we can grow the business and still have management and oversight."

Building relationships was a recurring theme -- particularly as it relates to being on virtual, geographically dispersed teams. One manager said that she only sees her direct reports a few times a year, but that with UC she does not feel separate from them. Others were thrilled at being able to pop online at night and find that members of their teams, stationed many time zones away, were online. They could IM each other and get work done, or build more rapport by saying "Hi." Another manager commented that her group (HR) does not work closely together, and IM helped to build rapport and moral by enabling them to send out a funny comment or joke once in awhile. Example comments related to relationship building include:

- "It increases camaraderie with my team."
- "It can improve moral, especially since we are geographically dispersed."
- "My relationship with other employees is enhanced. I can have face-to-face relationships using web conferencing with a video cam, which helps me do my job better."

4 UC Isn't All Roses - Yet

We would not be thorough if we did not spend a little time talking about the pitfalls of UC use. While not many, there were some red flags that came up. Anyone who has suffered with someone talking on their cell phone in a restaurant or post office line knows the problem of proliferating new technology. UC features are no different. In general, what makes UC so good - accessibility - can also create some problems. For example, users were asked whether UC cut down on their amount of unwanted communication. While some respondents were enthusiastic about how it has cut down on voicemail, and how quick IMs have replaced some emails, others were not so pleased, and they complained that IM had increased the amount of communication, and had degraded the quality of that communication. In one clear instance, an HR manager said that IM and presence had the unintended consequence of opening up the flood gates of "anyone in the organization sending any HR person an IM about anything," when a good portion of those inquiries should have gone to the HR contact center. In fact, this one organization said they were about to issue UC etiquette rules as a result. Another individual noted, "Frequently I will set up meetings with myself so no one will disturb me for an hour and a half."

One other respondent pointed out that "If it's used with the right discipline, UC can reduce unwanted communication, but at times it can be an interruption. But it can be a slippery slope if you have everyone invading people's rules of privacy. It has to be tempered with discipline. New etiquette for UC needs to be developed."

Most UC users do not know how to properly set up rules and priorities in order to manage their availability to people. User training is necessary to teach and encourage users to set up their contact rules, including who can interrupt them, whose calls are priorities, what to do with unwanted communications, etc. This may take some time on the part of each user initially, but it will greatly help in the long run.

Many users are rolling out the UC functionality slowly, and not all capabilities are being implemented and used. For example, most companies we spoke with are trying to figure out their mobility strategy and how UC fits in with that. One sales manager we spoke with noted that he and his team are mobile and not online all the time, so UC doesn't provide as much value to them. He added, "We're figuring out the mobility aspect of this – but it's still 3-6 months away."

Federation is also still a challenge, with only a handful of users having the ability to federate or share presence status and IM with people outside of their company, such as customers, partners, or suppliers.

5 Summary

Everyone's favorite question from the survey was, "What would you do if we took UC away?" The responses to this question are perhaps the most suitable way to summarize users' feelings about UC. The general reaction to the question was, very simply, users would "pitch a fit." In fact, every user's comments colorfully described what a backward move it would be to have to give up UC. These comments are the most representative:

- "I would experience a serious feeling of returning to the decade of the '80's. You can not unring a bell, and UC is a bell that needs to keep sounding off."
- "I'd demand it back! Seriously, it's one of the big changes that I've seen since being in business."
- "I would scream. I personally have found that it is getting more and more embedded into the way I do things on a daily basis. Presence helps me decide really fast how I'm going to communicate with someone. I'd be concerned about the impact on business. We'd lose a competitive advantage, which we have now."
- "I would go through withdrawal and throw a fit. We create our work lives around what we have. It boils down to would you be willing to pay the extra \$15 or \$20 to have it, but if I didn't I would throw a fit or pretty close to it."
- "I can't imagine not having UM and a single inbox. I'll never go back!"
- "It spread like a viral infection once everyone started getting it and now you can't take it away from them. It's proliferating throughout the organization."

Regrettably, the authors of this study do not have many features of UC yet, but if we did, we are sure we would not want to go back either.