Microsoft Office System
Customer Solution Case Study

Intel Expects Twenty Percent Reduction in Audio Conferencing Costs with Unified Communications

Overview

Country or Region: United States
Industry: Technology

Customer Profile

Intel develops innovative digital-technology products, primarily integrated circuits. Intel has more than 86,000 employees.

Business Situation

Intel wanted to provide users a unified collaboration platform to enable ease of switching among modes of communication.

Solution

Intel deployed Microsoft® Office Communications Server 2007 to deliver presence-enabled multimodal instant messaging and conferencing capabilities to all employees. The organization is also deploying voice and video capabilities on an ongoing basis.

Benefits

- Increased communication options for greater employee productivity
- Replacing office phones with softphones expected to lower costs and support the mobile office worker
- Audio conferencing costs expected to drop 20 percent
- Reduced travel/logistics costs and environmental impacts

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Donald Clark, Technical Services Manager, Intel

Intel is the world's largest semiconductor chip maker, based on 2007 revenues of U.S.$38.3 billion. Looking for a unified communications solution to promote efficient collaboration for its global operations. Intel chose Microsoft® Office Communications Server 2007 as the best solution to meet its needs and has deployed it to all 86,000 employees. Intel Software and Services engineers have worked closely with Microsoft to ensure the software runs efficiently on Intel Xeon® servers and PCs with Intel vPro™ Technology. It recently deployed Office Communications Server 2007 R2 to take advantage of HD quality video, server-based audio conferencing, advanced voice capabilities, and user-friendly desktop sharing. Intel expects that the cost savings from audio conferencing and HD video conferencing will reduce conferencing costs by twenty percent and allow for even greater process efficiencies.

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Situation

Founded in 1968 and with revenues of U.S.$38.3 billion, Intel develops advanced, integrated digital-technology products, primarily integrated circuits. The IT organization at Intel is always looking to give the company's 86,000 employees the best possible computing experience, while still driving down costs.

In 2000, Intel recognized the importance of Session Initiation Protocol (SIP) standards for communications and recognized that SIP could be used to deliver a high-quality experience for communications and collaboration at a low cost. At the time, SIP was typically being used for instant messaging applications, but Intel followed the development of the technology to determine when it could connect the various methods of communication used by the company.

By 2006, Intel thought that SIP could achieve this potential. Intel had already deployed Microsoft® Office Live Communications Server 2005 for instant messaging and presence. This was the first use of SIP-based communications at Intel. Moreover, Intel Software and Services engineers had been working hand-in-hand with Microsoft on its software to run best on Intel-based Xeon servers and PCs with vPro technology.

Prior to the deployment, many Intel employees used various Internet-based instant messaging services, and the IT department recognized the value that people could achieve with this technology but needed them to meet its stringent security policies. Intel required users to individually download and install the instant messaging solution onto their computer, but adoption was still widespread. "It's good when you get a rapidly installed base through user choice," explains Donald Clark, Technical Services Manager, at Intel. "This is how Microsoft became our standard, and it's mandated by popular demand. People know they will have difficulty communicating without it."

Intel also used the Microsoft Office Live Meeting hosted Web conferencing service for Web conferencing and application sharing. The majority of conferences were for five or six people who wanted to share data. Intel used Live Meeting for Web conferencing but separately maintained an audio conferencing service provider for voice components. Intel currently uses about 35 million minutes a month in audio conferences.

With widespread usage of instant messaging, presence, and Web conferencing, Intel was ready to investigate products that would use SIP to integrate presence, data, voice, and video. "SIP and presence provide value because they enable a user to identify available stakeholders and easily change modes of communication. A user can move among voice, data, and video, or they can all be integrated together." notes Clark. "You couldn't do that until you had a common standard to switch between."

Clark continues, "Our goal is to deliver the tools users need to complete their work regardless of their location. When all modes of communication are integrated through one solution, it's possible for users to work effectively wherever they are." Intel wanted to remove any barriers to communication and collaboration, including barriers created by location, and cut the costs of its current communication capabilities. To accomplish this task, Intel decided to use standards-based SIP for all forms of communication.

Solution

After investigating available communications products, Intel decided to upgrade to Microsoft Office Communications Server 2007 to provide integrated instant messaging, presence, voice, video, audio, and Web conferencing. When compared to

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other products on the market, Intel decided that Microsoft had the best communications solution in part because of its tight integration with other Office applications and its familiar user interface. "Microsoft has done a really good job of folding SIP technology into their mainstream technology," explains Clark.

Scalability and Adoption

Intel deployed one server pool in 2007 that handled the entire population of 86,000 employees. "We are extremely pleased with Office Communications Server 2007 and the rate at which Microsoft is making its products truly scalable for large organizations," comments Clark. "After a brief pilot for 5,000 users, we migrated the remaining 81,000 users to the new servers in one weekend."

Users were required to download the Microsoft Office Communicator 2007 client and were sent an e-mail message explaining the benefits of the upgrade. In five weeks, 86 percent of users had upgraded. After that period, the IT staff pushed the client out to the remaining users, and now more than 96 percent of the population is using Office Communicator for daily communications.

Even employees, such as chip designers, who do not use Windows®-based machines, demanded access to Office Communications Server 2007. Intel was able to provide access to these people using Microsoft Office Communicator Web Access. "Some engineers only need access to e-mail maybe once per day and are happy to use kiosks for this, but they use Office Communicator all day," explains Clark. "While Office Communicator is still an 'optional' product, it is one of our most widely used applications."

Conferencing

After moving people to Office Communications Server 2007 for instant messaging and presence, Intel began to expand the usage of other capabilities. Intel discontinued the hosted Office Live Meeting service and brought Web conferencing onto Office Communications Server 2007. Intel is also encouraging the use of Office Communications Server 2007 for video communications.

"Office Communications Server brings video conferencing capabilities to all of our employees. We have other video products, but they may never meet the entire corporate need," explains Clark. "Office Communications Server can meet this need because every employee is enabled." To encourage video conferencing, Intel changed its strategy for buying laptop computers and now encourages models with built-in cameras. In 2008, Intel deployed laptops with this feature to its entire sales force.

"For Office Communications Server 2007 R2, Intel engineers worked closely with Microsoft application engineers to deliver a high definition [HD] video conferencing solution to the market," states Clark. "Intel's new vPro-based desktops and Centrino2 notebook PCs can be outfitted with the processing capability required for HD." vPro systems are specially designed for security, manageability, and energy-efficient performance to deliver ideal business value. Office Communications Server 2007 R2 together with vPro enables "Virtually There" meetings with amazing quality. "Office Communications Server 2007 R2 coupled with Centrino 2 vPro delivers HD video conferencing to Intel's mobile workforce," says Clark.

This capability is a major advancement over existing solutions as the video quality is now good enough to replace in-person meetings, thus reducing travel demand for Intel's mobile workforce.

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Voice

Another capability of Office Communications Server, voice communications, has not been fully realized by Intel IT at this time; yet over 3,000 users have become early adopters for their voice communication needs. "Our goal is to have voice fully delivered on SIP and equal to other data sources on the network," explains Clark. "First, we are restructuring our network to handle SIP-based voice communications effectively, then we can aggressively promote greater real-time voice across the enterprise."

Office Communications Server 2007 R2

Intel recently deployed Office Communications Server 2007 R2 in a test environment. This upgrade represents the next step in the organization's move to SIP-based communications. "Office Communications Server 2007 R2 provides the capability to meet the audio conferencing needs of users," notes Clark. "Hosting audio conferencing internally on Office Communications Server will enable users to use the built-in audio conferencing capabilities of Live Meeting Web conferences and lower the overall cost of conferencing." Like other programs at Intel, the adoption of the audio conferencing capabilities will be user-driven, but Intel does plan to deploy another 9,000 headsets to users next year.

Office Communications Server 2007 R2 also enables the use of Office Communicator Mobile 3.0. This application extends the benefits of Office Communications Server and presence to mobile devices and enables users to use one number for all devices.

Benefits

Intel expects to see significant cost savings as it deploys Office Communications Server 2007 R2. However, the decision to deploy is driven by improvements in employee productivity and efficiency. "We're going to see significant savings in audio conferencing from the move to Office Communications Server 2007 R2, but more importantly it makes it easier for users to communicate effectively." notes Clark.

Reduces Communications Costs

Intel expects to reduce the use of its current audio conferencing service with the adoption of Office Communications Server 2007 R2. "As we scale out the deployment, we expect to save 20 percent or more from our audio conferencing expense. When you conduct a million minutes a day, that is significant," explains Clark. "These savings can be put back into our infrastructure for other improvements. This is a better use of money because it's investing in conferencing efficiency while lowering expenses that just go out the door."

Intel also saves money by transitioning users to softphones as they deploy Office Communications Server 2007. "As we upgrade phone systems, we want to remove the necessity of using hardphones. Every time I do this, I reduce an asset used 40 hours per week," explains Clark. "Moving the phone into the PC and complementing it with a cell phone will give users more flexibility."

Intel encourages voice users to use the softphone capabilities of Office Communications Server rather than deploying physical phones to employee desks. Softphone usage enables employees to use their office phone number wherever they have their computer rather than just at their desk.

In addition to freeing employees from their desks, the switch to softphones saves Intel money. "We remove an asset type that is not required, and we don't have to pay maintenance, support, and move costs. We save over $200 per phone and it isn't hard for organizations to compute their own savings here," adds Clark. With 3,000 people

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using softphones today, Intel has made PC calling the de facto office communications device. Given that success, Intel has a goal to quadruple the number of PC-based audio users in the next year.

Improves Communications Between People and Organizations

Office Communications Server 2007 R2 provides a more consistent environment for communications. People can see the presence information for their contacts and then initiate the most appropriate form of communication with just one click. "Our worst case scenario is now four clicks to full collaboration, which is great," notes Clark. "A user can initiate contact with instant messaging, escalate to audio, then escalate to video, and finally to Live Meeting. Of course, they could just start with a Web conference and get everything all at once."

Microsoft Office Communicator Mobile is extending the value of Office Communications Server 2007 for employees who are out of the office. Intel will deploy Office Communicator Mobile to its entire sales force in the beginning of 2009 so they can effectively find and contact available resources when they are out of the office and do not have Internet access. For example, a salesperson in Nigeria, who was supported out of the London office, rarely had Internet access at customer sites but still needed to check on orders and confirm pricing. He was forced to call people in the London office until he reached someone, often calling four to five people to get an answer. With international calls costing five to ten dollars each, the actual and lost productivity costs were huge. These inefficient operations will be greatly reduced with Office Communicator Mobile because presence information enables the caller to find an available resource before making a call.

Intel is also increasing the use of video with the Office Communicator client. Intel Centrino 2 with vPro technology–based laptops are now available with the improved processing power, display resolutions, and battery life that employees need to use Office Communicator high-definition video capabilities effectively. Intel now produces training videos, rather than written documents, to explain complex tasks. Employees use Office Live Meeting to view these training videos. "Showing a person a five-minute video of how to adjust a fabrication machine is much more effective than giving them a 15-page paper, especially when you have such a diverse and international workforce," notes Clark.

Supports Future Initiatives

Intel will continue to expand the services provided by Office Communications Server 2007, especially voice and video conferencing. Because most employees already use presence and instant messaging, Intel expects to gain the greatest value from expanding its use of voice and video conferencing by simply taking advantage of growing capabilities with the familiar Office Communicator interface.

For More Information

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Microsoft Office System

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Software and Services

- Microsoft Office
  - Microsoft Office Communications Server 2007 R2
  - Microsoft Office Communicator
  - Microsoft Office Communicator Mobile 3.0
  - Microsoft Office Communicator Web Access
  - Microsoft Office Live Meeting

Hardware

- Microsoft UC-qualified devices provide the optimal UC experience and economics - wideband audio, plug-and-play installation, and seamless Microsoft Office Communicator 2007 integration.
  - Polycom CX200 USB phone
  - Jabra GN2000 NC USB headset
  - Plantronics SupraPlus Wideband USB headset

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