



Organ Donor Network Uses Unified Communications to Place Organs Faster

Overview

Country or Region: United States
Industry: Healthcare

Customer Profile

The United Network for Organ Sharing (UNOS) is a nonprofit organization that administers organ transplants in the United States. UNOS has nearly 300 employees based in Richmond, Virginia.

Business Situation

UNOS wanted to speed organ placement by improving communications between organ procurement and transplant teams. UNOS also wanted to reduce travel and help employees communicate more effectively.

Solution

UNOS is implementing Microsoft® Office Communications Server 2007 and Microsoft Office Communicator 2007 to enhance communications with presence, instant messaging, voice over IP (VoIP), and Web conferencing.

Benefits

- Faster placement process
- Improved employee productivity
- Reduced costs
- Enhanced security
- Foundation for future innovation and savings

“By improving our ability to contact more recipients, we improve the odds of finding a suitable organ recipient, thus reducing the odds of not being able to use the available organ.”

Kevin Willis, IT Manager, United Network for Organ Sharing

The United Network for Organ Sharing (UNOS) is a nonprofit organization that administers the Organ Procurement and Transplantation Network in the United States. When an organ becomes available, UNOS and its members generally have less than 48 hours to locate a suitable recipient. UNOS is helping to speed the process by enhancing its internal Web-based DonorNet application with Microsoft® Office Communications Server 2007. By using the presence and multiparty instant-messaging features of this software, UNOS will be able to involve multiple transplant and organ recovery teams in a discussion, instantly and simultaneously, and locate a suitable match significantly faster. The implementation of these same unified communications tools will help UNOS employees communicate more efficiently with one another and with external partners. It also will help cut annual travel costs by U.S.\$100,000.

“Tens of thousands of people need organ donations each year, and just a small percentage of them get one.”

Blaine Hess, Assistant Executive Director for Information Technology, United Network for Organ Sharing

Situation

The United Network for Organ Sharing (UNOS) is a nonprofit organization based in Richmond, Virginia, that facilitates every organ transplant performed in the United States. It administers the nation’s only Organ Procurement and Transplantation Network, established by the U.S. Congress in 1984. UNOS has about 300 employees but works with a 6,500-member community that represents transplant hospitals, organ-procurement organizations and laboratories, voluntary health organizations, medical professionals, and donor families and recipients.

“Tens of thousands of people need organ donations each year, and just a small percentage of them get one,” says Blaine Hess, Assistant Executive Director for Information Technology at the United Network for Organ Sharing. “Our job is to increase the number of available organs that are transplanted.”

Thanks to Hess’s and others’ relentless commitment to scout and implement innovative technologies, UNOS has made big strides in closing the time, space, and information gaps between donors and recipients. In this business, the enemy is the ticking clock. Depending on the organ, physicians only have between 6 and 48 hours to transplant an organ before it can no longer be used.

Originally, the UNOS placement network revolved around paper and phones. When an organ became available, someone in a local Organ Procurement Organization telephoned UNOS with the news and a report on the organ’s condition and the deceased patient’s medical makeup. UNOS would then begin to call down a ranked list of waiting recipients until the organ was accepted. If the eighth person on the list was the ideal recipient, that person had to wait until doctors for the first

seven were called, the organ condition explained and discussed, and a go/no-go decision reached. It might take an hour to reach each potential recipient and another hour for the recipient to make a decision about whether to accept the organ. Meanwhile, precious life-saving hours slipped away.

To speed up the process, Hess’s team created a Web-based application called DonorNet, which UNOS uses to notify transplant centers of donor offers electronically. Organ Procurement Organizations and physicians access DonorNet by using desktop or portable computers.

DonorNet, rolled out in late 2006, was a big hit with UNOS members—but they soon wanted more. “Our original intent was for DonorNet to be simply a notification system; the idea was for people to then connect by phone to get more data about the organ,” Hess explains. Very quickly, however, both sides of the transplant equation asked for even more electronic convenience in connecting and communicating to negotiate the organ exchange. Because organ and transplant coordinators typically already use personal digital assistants, they wanted to be able to use these devices to communicate with one another in real time. The challenge for UNOS was how to augment DonorNet with this free flow of real-time communication in a way that was secure, auditable, and easy to run, support, and use.

In addition to providing better ways for its 6,500-member external community to communicate, UNOS wanted to streamline communications for its own staff. “Two-thirds of our 300 employees travel all the time,” Hess says, mostly to policy-making committee meetings. “But even searching for people and conference rooms in the same building is a hassle. We waste a lot of time playing phone

“It was clear to us that Office Communications Server 2007 was the only thing that allowed device-independent, secure instant messaging with transaction logging and tracking, all features we needed.”

Kevin Willis, IT Manager, United Network for Organ Sharing

tag and trying to corral people for input on documents and decisions. Even though we use Web-based collaboration sites extensively, it's not always easy to find people to resolve questions quickly.”

Solution

UNOS had a head start in resolving these internal and external communications challenges. Shortly after it created DonorNet (by using the Microsoft® .NET Framework version 2.0, Microsoft SQL Server™ 2005 database software, and Internet Information Services version 6.0), UNOS began to implement a slew of new Microsoft communications and collaboration programs. With the help of Microsoft Gold Certified Partner SyCom Technologies, UNOS installed Microsoft Office Enterprise 2007, Microsoft Exchange Server 2007, and Microsoft Office SharePoint® Server 2007.

The IT staff's goal with these implementations was to give employees the same work experience no matter what computer or communication device they use or where they use it. The organization used Microsoft Exchange Server 2007 to implement a unified messaging environment in which employees can access e-mail and voice mail messages, contacts, and calendars from a wide range of devices by using a familiar interface—that of the Microsoft Office Outlook® messaging and collaboration client.

In early 2007, Microsoft announced the release of Microsoft Office Communications Server 2007, the latest version of Microsoft Office Live Communications Server 2005 and another critical piece of its unified communications strategy. UNOS was already using Live Communications Server 2005 for internal instant messaging and presence—the ability to see an individual's availability and preferred mode of communication—and

decided to upgrade to Office Communications Server 2007.

“It was clear to us that Office Communications Server 2007 was the only thing that allowed device-independent, secure instant messaging with transaction logging and tracking, all features we needed to enhance DonorNet,” says Kevin Willis, IT Manager for the United Network for Organ Sharing. Office Communications Server 2007 is an integrated software suite that includes presence, instant messaging, on-premise Web conferencing, software-powered voice over IP (VoIP), and the ability to extend unified communications to outside parties.

UNOS is also implementing Microsoft Office Communicator 2007, a unified communications client that people use to move seamlessly between e-mail messaging, instant messaging, voice, and video communications from within any Microsoft Office application. “Our goal is to use Microsoft technologies to create an environment in which people can reach one another and communicate no matter where they are,” Willis says. “By implementing key communications capabilities in software, we can use our existing infrastructure and avoid the purchase of new hardware. That gives us lower equipment, setup, maintenance, and support costs.”

To date, UNOS has implemented Office Communications Server 2007 and Office Communicator 2007 internally and will integrate DonorNet with Office Communicator 2007 in early 2008. UNOS also has implemented the Microsoft RoundTable™ conferencing and collaboration device, a video conferencing phone that captures and broadcasts a 360-degree view of everyone in a meeting room. RoundTable follows the conversation and broadcasts a close-up of the speaker.

“By incorporating presence and instant messaging into DonorNet, we’ll be able to immediately connect the organ procurement and transplant coordinator[s]...so that they can have a live discussion.”

Blaine Hess, Assistant Executive Director for Information Technology, United Network for Organ Sharing

Benefits

By adding Office Communications Server 2007 to its communications arsenal, UNOS will be able to inject real-time relevance into its DonorNet application and allow organ-recovery and transplant teams to communicate instantly to speed organ placement. By enhancing its internal communications with presence, instant messaging, Web conferencing, and VoIP, UNOS will squeeze inefficiencies out of routine employee communications, speed decisions, and enhance employees’ ability to quickly bring together the right people to solve problems.

Faster Placement Process

When UNOS integrates Office Communications Server 2007 into DonorNet, all parties on an organ waiting list can get the details on the newly available organ at the same time and begin to ask questions interactively and simultaneously by using instant messaging.

“Everyone on the list will have the chance to be part of the discussion about an organ,” Hess says. “It may become apparent in the second hour that recipient number six is really the best candidate for that organ. By incorporating presence and instant messaging into DonorNet, we’ll be able to immediately connect the organ procurement coordinator sitting in a hospital somewhere with a transplant coordinator in another state, so that they can have a live discussion thread without UNOS in the middle.” Ultimately, UNOS could have up to 5,000 people who use DonorNet.

Real-time, multiparty communications between donor agent and potential recipients not only speeds the placement process but also increases the recipient’s confidence in an organ’s suitability for their patient. “When people are able to monitor and participate in discussions about an organ, they are better

informed, which bodes well for a more successful match,” Hess says. “If an organ has been turned down by others, by the time it gets to you, you may wonder if you should turn it down, too. However, if you’ve been part of the discussion from the beginning, you know the situation, and the placement coordinator doesn’t have to re-explain the circumstances while the clock is ticking.”

“Since implementing DonorNet, we’ve been able to contact everyone on a donor list twice as often as before,” Willis adds. “By improving our ability to contact more recipients, we improve the odds of finding a suitable organ recipient, thus reducing the odds of not being able to use the available organ. In this business, the more time we save, the more lives we save.”

Improved Employee Productivity

Internally, UNOS employees will be able to use presence to see immediately if the colleagues they need to reach are available, even if one of them is out of the office. This saves time and frustration by eliminating phone tag and e-mail-messaging lags. Also, if team members need to look at shared data, they can launch an impromptu Web conference session.

“Office SharePoint Server 2007 and Office Communications Server 2007 are very powerful together,” Willis says. “Not only do we have a common meeting place and common document storage center but a better way of reaching people. We won’t have to find a conference room, which is often impossible. Now, your office is your conference room.”

The smooth integration of Office Communications Server 2007 with standard Office programs such as Microsoft Office Word 2007 and Microsoft Office Excel® 2007 spreadsheet software will also speed communication and closure. “I can pull up a

“Reducing or eliminating the need to get on a plane and travel will be a huge benefit to our road-weary employees and also make them more productive.”

Blaine Hess, Assistant Executive Director for Information Technology, United Network for Organ Sharing

document and see that two of the people needed to complete it are online,” Hess says. “We can discuss the needed changes right then and there by joining a Web conference with a single mouse-click.”

Employees can upgrade communications from e-mail messaging to instant messaging to a voice call or video conference with a single mouse-click at each juncture. Because Office Communicator 2007 is linked to the Exchange Server Global Address List and to the Office Outlook address book, it automatically dials targeted numbers, which eliminates time spent switching programs and looking up contact information.

With RoundTable and Office Communications Server 2007, remote and traveling UNOS employees can quickly connect to meetings and see who’s speaking, which enhances communication and a sense of community. “We participate in dozens of committees across the country involved in setting transplant policies and other administrative issues,” Hess says. “With unified communications and RoundTable, we envision having far fewer remote meetings. Reducing or eliminating the need to get on a plane and travel will be a huge benefit to our road-weary employees and also make them more productive.”

Reduced Costs

UNOS expects the implementation of Microsoft unified communications software to cut its travel costs by U.S.\$75,000 to \$100,000 annually. “Plus, because we can host our own Web meetings through the on-premise conferencing capabilities in Office Communications Server 2007, we’ll see savings there,” Willis says. “Now that we can open up Microsoft Office Live Meeting anytime, anywhere, we’ll use it much more. Having this capability on-premise gives us the freedom to use this valuable asset as much as we can.”

UNOS believes that Office Communications Server 2007 will pay for itself in the first few months of use. “We expect to realize an immediate savings of \$150,000 in the first year and potentially more in subsequent years as we improve our use of the technology,” Willis says.

Enhanced Security

Willis says that UNOS eliminated all instant messaging for a long while because of security threats. “Office Communicator 2007 is allowing us to securely open this valuable tool again and extend it beyond our walls,” he says. Office Communicator 2007 and Office Communications Server 2007 integrate smoothly and easily with the Active Directory® service and extend the organization’s existing directory structure and security policies to new communication tools.

“Migrating to Office Communications Server 2007 and integrating it with our Active Directory schema was very easy,” Willis continues. “Even with the many other projects that we have going, it only took two days to get it up and running.”

“The new world of work for us is being efficient and effective anywhere you are,” Willis adds. “Talking to people in real time, accessing your data in real time from any device, getting the answers you need when you need them. And with all these capabilities attached to an enterprise-caliber Microsoft software foundation, security is not such a gauntlet that it discourages you from doing these things.”

Foundation for Future Innovation and Savings

Going forward, UNOS will see more possibilities and more savings by building on its unified communications foundation. “We’ll save on capital investments in the long run, because any time you need to bolt on third-party products, you need additional support,”

For More Information

For more information about Microsoft products and services, call the Microsoft Sales Information Center at (800) 426-9400. In Canada, call the Microsoft Canada Information Centre at (877) 568-2495. Customers who are deaf or hard-of-hearing can reach Microsoft text telephone (TTY/TDD) services at (800) 892-5234 in the United States or (905) 568-9641 in Canada. Outside the 50 United States and Canada, please contact your local Microsoft subsidiary. To access information using the World Wide Web, go to: www.microsoft.com

For more information about SyCom Technologies products and services, call (804) 474-5211 or visit the Web site at: www.sycomtech.com

For more information about United Network for Organ Sharing products and services, call (804) 782-4800 or visit the Web site at: www.unos.org

Willis says. "By keeping our communications infrastructure within the familiar Microsoft toolset, we keep it simple and cost-effective. Because we already have an investment in and familiarity with Microsoft software, we're able to participate in the latest innovations."

Microsoft Office System

The Microsoft Office system is the business world's chosen environment for information work, providing the programs, servers, and services that help you succeed by transforming information into impact.

For more information about the Microsoft Office system, go to: www.microsoft.com/office

Software and Services

- Microsoft Office
 - Microsoft Office Communications Server 2007
 - Microsoft Office Communicator 2007
 - Microsoft Office Enterprise 2007
 - Microsoft Office SharePoint Server 2007
- Technologies
 - Active Directory

Hardware

- Microsoft RoundTable

Partners

- SyCom Technologies