

Being there

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By Trudy Walsh,

New tools for voice, data and video let you take a meeting virtually anywhere

An Army radar unit in Afghanistan ran into technical difficulties in January, so a soldier called in an Army logistics representative to help resolve the problem.

The rep looked over the soldier's shoulder, found the problem and in a few hours the system was fixed.

Nothing unusual, except that the technical rep took this over-the-shoulder view from New Jersey, not Afghanistan. By using a suite of audio, video and other collaboration tools, the representative could relay information in seconds to the soldier on the other side of the world, who fixed the system within hours, as opposed to days or weeks.

The Army's Telemaintenance Program, based at the Communications-Electronics Life Cycle Management Command Logistics Readiness Center at Fort Monmouth, N.J., can provide this direct support to warfighters by using a combination of Adobe Connect Professional, satellite communications, a headset and laptop PC. Soldiers can set up the equipment, which weighs about 35 pounds, in about eight minutes, said Tom Wasnesky, computer scientist and team leader of the Telemaintenance Program.

Collaborative tools have come a long way from the days of swapping e-mail with attached Microsoft Word documents. There is still a place for e-mail, of course, but federal agencies are using increasingly sophisticated tools for collaborating, often remotely.

Powerful collaborative tools are important to the U.S. Africa Command, or Africom, a Defense Department command based in Stuttgart, Germany, that collaborates closely with the State Department, U.S. Agency for International Development and other federal agencies involved in Africa.

Hamlin Tallent, vice president at Sentek Consulting, is working with Africom to provide better information technology to African nations.

If a disaster hit the west coast of Africa, "the United States could send ships, but [Africans] would have no way of connecting with our databases," Tallent said. "We could send plasma and blankets, but on the other side, there is nothing much to connect into" and thus no effective way of tracking resources.

The technology Sentek is exploring is Web-based, handheld and, like the Telemaintenance Program, uses satellite communications tools.

"And we're agnostic to any kind of technology offering," Tallent said. "We're not here to sell Microsoft SharePoint or Google or anything like that."

Last summer, Sentek representatives tested several handheld wireless devices equipped with Global Positioning System receivers at locations in Addis Ababa, Ethiopia; Ghana, and Nigeria.

“We used these devices to show the art of the possible,” Tallent said. Using inexpensive handheld devices, the Sentek team took photos and sent them to one another. “Here we think of connections as requiring landlines, which can take years to lay out,” he said, but it’s faster to set up mobile phone towers and use cellular technology, especially in rough terrain.

At first, some in the military community questioned the security of running the operation in an unclassified environment. “But people pass their own credit card numbers across the Internet,” Tallent said. “Trillions of dollars move around the world in an unclassified environment every day.”

Demonstrating that commercial-level security was viable allowed the system to be nimble, Sentek officials said.

“I have a theory. I think that much of the classification of military documents has more to do with the administrative ease it creates than with protecting information,” Tallent said.

“Sometimes something is classified as secret just because the secret sign was already stamped on the PowerPoint template.”

The ubiquity of newer collaboration tools, such as wikis, blogs, instant messaging and photo-sharing tools such as Flickr, have made collaboration “a fun thing to do,” said Cameron Matthews, Sentek’s chief technology officer.

But in a military environment, Matthews said, he has to be careful to make the newer collaborative tools non-embarrassing.

“A two-star general might not want to have to get into a buddy list or put on an avatar in a robot suit,” he said. In the military, cultural expectations are more conservative.

The need for better collaboration and communication tools isn’t limited to developing countries. In October, wildfires not far from Sentek’s offices in San Diego dislocated whole communities. “You had no way of knowing what was going on, regardless of which TV station you tuned into,” Tallent said. A mapping application that would show what was going on and where “and how it related to you,” would have been useful, he said.

Going small The Web and wireless communications have radically changed the way government collaborates, said Vic Berger, technologist at CDW-Government.

“It used to be, collaboration took place in the government from videoteleconferencing room to videoteleconferencing room,” he said. Agencies invested in room-sized teleconferencing suites to provide face-to-face collaboration remotely. Now this has shrunk from a room to a desktop. “You can use off-the-shelf IP cameras, soft phones and software to teleconference from your laptop.”

Cisco Systems’ WebEx, for example, integrates voice, video and instant messaging.

With WebEx, users can share a document, such as a PowerPoint presentation, with a fairly wide audience, Berger said.

Federal users are increasingly starting to latch on to these combinations of instant messaging, chat and video, such as WebEx, said Brent Byrnes, manager for regional sales and unified communications public sector lead at Cisco.

Another hot collaboration product is the Microsoft Unified Communications Suite, which offers voice, video and data collaboration and includes SharePoint Server, Berger said. The availability of Microsoft tools on almost every desktop PC in the government has made the suite a favorite of federal users, Berger said.

A survey of GCN subscribers taken this year bore this out, with more than 55 percent of those surveyed saying that they used Microsoft Office SharePoint Server to collaborate.

Rick Korchak, senior technical adviser at the National Institute of Standards and Technology's Manufacturing Extension Partnership Program, collaborates with a network of MEP centers in the 50 states and Puerto Rico. The program transfers technology to small and midsize manufacturers.

"We always had this need for using technology to connect with people in this national system," said Korchak, who started with the program in 1989. "Back then, we used [File Transfer Protocol] servers and e-mail to send files," he said. "What an amazing thing."

Travel time Korchak is also responsible for three communities of practice within the program: radio frequency identification, lean practices and intellectual property. He began evaluating Web conferencing tools to share best practices and now uses Genesys Web conferencing.

The MEP centers have incorporated Web conferencing into the way they do business, Korchak said. "We haven't done studies on this, but I'm sure this has saved a lot of travel time and money." Korchak needs only a browser and a phone to get a Webcast going, he said. "But we do have those big videoconferencing rooms with stereo equipment that connect to some sort of dedicated system."

Tools that enable speedy collaboration between sometimes far-flung parties are attracting federal users, such as those working with FoodShield (www.foodshield.org), a secure Web-based system designed to help federal, state and local regulatory agencies protect the food supply. The project is sponsored by the National Center for Food Protection and Defense, a Homeland Security Department Center of Excellence.

Eric Hoffman, a managing partner at EJH and Associates, which is working with NCFPD on FoodShield, is using Adobe Cold-Fusion and Adobe Connect to help share data among state, local and federal agencies.

Sometimes the hardest part of collaborating across agencies is getting the correct contact information, which Adobe Connect helps them do, Hoffman said.

State and local agencies often have their own peculiar ways of organizing information. "In Alaska, for example, food safety falls under the state environmental protection agency," said Bill Krueger, a visiting research fellow at DHS and former lab director for Minnesota's Department of Agriculture. Even getting people's titles straight was a challenge, he said. The head of a state agriculture department is sometimes called the commissioner of agriculture, sometimes the director and sometimes the secretary.

"So we had to vet it out to find out who was the head of the agriculture department in each state," Krueger said. "Now we can send out a secure e-mail to all the heads of state agencies to come to a meeting at 3 o'clock."

Food safety issues require that kind of immediate response, he said. FoodShield "lets us identify who's on first, who's on second," Krueger said. The Web portal is creating a community of food safety officials in all 50 states. They will be able to take advantage of work that's already been done, he said. A few years ago, there was an outbreak of chloramphenicol contamination in imported shrimp. Chloramphenicol, an antibiotic, is banned from the U.S. food supply because it is a suspected carcinogen. "The moment it became a national issue, you had nine labs trying to develop a new method for testing for it," Krueger said. If the labs had been able to query a database of state food safety researchers, "they would have found out that Florida already had a method they'd been using for years."

In doing collaborative work, more feds want to feel a real connection with the person on the other end and have the ability to see nonverbal communication, Byrnes said. Cisco's Telepresence application uses high-definition video to give users a sense of being there. The technology is now in 171 locations worldwide, including state, local and federal installations.

These high-definition collaborative solutions can save travel time and money, said Anne Guenther, senior manager at InterCall, a conferencing services company.

“We looked at the meeting habits of our target audience, and over 50 percent of folks were jumping on a plane for a one-night business trip,” she said. “You could probably accomplish the task over Web conferencing.”

The advent of telework and the government’s investment in continuity-of-operations planning has also helped collaborative tools make a mark in the federal workplace, Berger said. Session Initiation Protocol technology — which creates, modifies and terminates sessions with one or more participants — has made collaboration easier. SIP is starting to become mainstream in government, Berger said. And advances in wireless technology have freed collaboration tools from the constraints of bandwidth and have opened new communication possibilities in remote locations.

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