



## Call for Assistance

Michigan's Department of Human Services upgrades its phone system and humanitarian efforts.

For many of Michigan's neediest residents, the state's Department of Human Services (DHS) is the resource of last resort. It administers medical and cash assistance programs for the state as well as child and adult protective services, foster care, adoptions, juvenile justice, domestic violence and child support programs. Often, a telephone initiates the link between caseworkers and Michigan residents who so desperately need help. When some of the department's aging phone systems caused that crucial link to fray, state officials turned to Voice over Internet Protocol (VoIP) technology to ensure reliable phone service today and access to greater efficiencies in the future.

DHS is the second largest state agency in Michigan, operating more than 140 offices and employing approximately 10,000 people. But heading into the 21st century, its antiquated telephone systems were presenting operational inefficiencies, causing delays for clients receiving assistance and safety concerns for caseworkers in emergency situations. "The majority of our offices were using phone systems that were more than 15 years old," says Ruth Goldman, the department's telecommunications manager. "Many systems were in a continuous state of disrepair, and repair costs were escalating. Some system manufacturers had closed their doors, which made it difficult to find parts or get technical support."

### Problems Solved

In 2004, Michigan's IT Executive Council began thinking seriously about replacing DHS's outdated phone systems with VoIP technology, intrigued by the opportunities it offered to improve service, reduce ongoing costs and enable combined voice and data applications. Unlike traditional phone systems, which convert analog signals to digital ones for routing over a proprietary network of telephone lines, a VoIP system converts those signals into digital packets that can travel over any IP-based data network, including the Internet. "We were told by all the major

phone switch providers that VoIP was the way to go, and that investing in anything else would have been investing in old technology," recalls Jack Harris, director of telecommunications for the Michigan Department of Information Technology (DIT).

Rather than undertake the transition to VoIP on its own, the state collaborated with AT&T to develop specifications, select an equipment vendor and oversee the purchase and installation of the new gear. After a 30-day comparison of three leading solutions at three DHS locations, DIT and DHS in consultation with AT&T chose equipment from Cisco Systems Inc., because the department had a data network that already ran on an installed base of Cisco gear, and DHS staffers liked the design and feel of the Cisco telephones. The Cisco solution was also the most cost-competitive solution of the three.

### Michigan Department of Human Services Facts

- **Client Needs**  
A reliable, efficient phone service and network
- **Technology Solutions**  
AT&T oversaw the purchase and installation of VoIP technology and configured DHS's network to prioritize voice and data traffic during high volume.
- **Business Value**  
The new VoIP system saves money and ensures that all calls reach caseworkers.
- **Industry Focus**  
Social services agency
- **Size**  
DHS has more than 140 offices and approximately 10,000 employees.



Phase 1 of the project converted 77 DHS sites to the new technology, with the remainder to be converted in 2008 and 2009 pending the release of additional funding. Installation of new servers and nearly 7,000 new phones began in May 2006 and was completed in March 2007. In addition to installing new hardware, AT&T configured a new "quality of service" level for the agency's existing wide-area data network, connecting DHS offices across the state. The network's routers were configured to give preference to voice traffic over standard data traffic during periods of heavy usage, ensuring that phone calls would go through with no dropped signals. It also replaced numerous conventional trunk phone lines running into and out of DHS facilities with a single PRI, or Primary Rate Interface, which is comparable to a high-capacity T-1 circuit. "This resulted in substantial savings on network costs," observes Anne Fisher, the AT&T senior account manager overseeing the project.

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– Ruth Goldman, Telecommunications Manager,  
Michigan Department of Human Services

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As with any large undertaking, the project team encountered unexpected hurdles. For example, individual DHS offices used widely varying call-handling protocols, which meant that each office became a unique installation. Two sites had to be upgraded

from Category 3 to Category 5 cabling in order to support new technology, and some offices had to have 20-amp electrical outlets replaced with 30-amp single-phase twist lock outlets to accommodate the uninterruptible power supplies installed as part of the new system. Through it all, Goldman says, "AT&T did a remarkable job. It was truly a team effort."

#### **Future Plans**

With the Phase 1 installation complete, AT&T is now working with DHS to help it take advantage of the VoIP system's capabilities, such as routing calls between VoIP-enabled DHS offices over the agency's wide-area network, which will eliminate local and long-distance phone company access charges among its offices statewide. Ultimately, DHS expects to take advantage of CTI, or computer-telephony integration, which allows for the use of "screen pops," in which information about a caller automatically pops up on the computer screen of the DHS caseworker taking the call. In time, Harris adds, VoIP technology will be rolled out to other Michigan state agencies as well.

For now, Goldman is happy to be at the forefront of the state of Michigan VoIP revolution. It's not just yielding operational improvements but cost savings too. "My guess," she says, "is that we'll have recovered our initial investment within three years." Of course, the less money the state needs to pay for telephone services, the more money it will have to fund important government programs. That's a win-win proposition taxpayers and DHS employees alike can applaud.

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