



## Enabling the Human Network in Government Human Services

### Abstract

With growing case loads, limited resources, and fixed budgets, human services agencies need creative solutions to provide vital services to citizens in need, 24 hours a day. Top priorities include:

- **Holistic service:** Human services agencies are most effective when a citizen can receive all needed services in a single visit or phone call rather than struggling to coordinate multiple services. A parent trying to reenter the workforce, for example, might need the collaborative efforts of welfare, childcare, and transportation agencies.
- **Inclusion:** Effective governments strive to include all citizens, including those who live far from government offices or who are economically disadvantaged or have disabilities. When government makes it easy for citizens to obtain training and information without traveling to a government office, it creates economic and social benefits for the community.
- **Efficient case management:** To cope effectively with large case loads, caseworkers need tools to be more productive. One strategy is to give caseworkers mobile access to information and services from the field, at the point of need.
- **Citizen empowerment:** Self-service Web and voice applications help human services agencies serve larger populations without increasing staff size. Citizens can use the applications to apply for and check the status of benefits and programs at their convenience, without waiting for an employee.
- **Effective health services:** Agencies involved with healthcare can improve service to ill or disabled residents by providing telemedicine services and by monitoring the patient's blood pressure and other indicators from neighborhood clinics or even from the resident's home. In addition, connecting health providers over the network enables consistent treatment and avoids the delivery of redundant services.
- **Information security and privacy:** Network security is critical for protecting citizen privacy, which is both a regulatory requirement and a vital part of building and fostering trust in government.
- **Effective disaster relief:** During natural disasters or other emergencies, human services personnel need to quickly establish voice and data communications at mobile shelters in order to access up-to-date housing and medical-services information.

Read more to discover how human services agencies around the world are meeting these goals using solutions from Cisco®.

### Holistic Services

**The vision:** Citizens can receive the full breadth of services they need in a single visit or phone call. They perceive government services as cohesive rather than isolated.

Meeting a citizen's needs typically requires coordinating multiple services, which today are isolated in different departments. A parent transitioning out of a welfare program who learns of an abusive situation at the day-care center, for example, may need to contact the employment department to get permission for a short absence, the child welfare agency to report the abuse, the day-care agency to find a new provider, and the transportation department for bus schedules to get to the new provider. Today, making these arrangements typically requires at least four separate phone calls by the citizen, as well as additional internal calls between the collaborating agencies.

With Cisco Unified Communications, all agencies involved with a particular citizen's situation can come together temporarily over the network to solve the problem, providing holistic service. Whichever agency the citizen calls first can spontaneously initiate a conference call, with the option of including video and Web collaboration. Conferencing is easy: The employee views a list of all employees with the appropriate skills on the built-in screen of the Cisco Unified IP Phone or a PC with Cisco Unified Personal Communicator software. Cisco presence technology indicates whether each employee is available and at which number. The employee then simply drags the names of available people into a conference window to begin the call. By enabling employees to reach the right person on the right device, the first time, presence technology helps citizens receive better service with less hassle, and helps human services employees become more productive. What is more, Cisco Unified MeetingPlace records the actions taken during the call if needed for later review.

“By enabling human services employees to convene over the network to solve a problem, Cisco solutions help governments to provide holistic service without months or years of attempting to integrate each agency's applications.”

### Inclusion

**The vision:** Make it easier for disadvantaged citizens to obtain the training and resources they need to become contributing members of the community, and for citizens who live far from government offices to receive services.

Today, citizens who are struggling to enter the job force must surmount multiple barriers, including finding temporary housing and meal assistance, work programs, day care, and transportation. Citizens who live far from government offices often must travel long distances to receive training and services.

Human services agencies can topple these barriers by delivering training and information over the network to citizens' homes. This spares citizens the need to find daycare and transportation, and also gives them experience with computer skills needed in the evolving global economy. Citizens without PCs can use public PCs or kiosks in nearby human services offices and libraries, and those without broadband connections can take advantage of free or low-cost wireless access made possible by Cisco outdoor wireless mesh solutions. Cisco wired and wireless networks provide the bandwidth and quality of service (QoS) needed to deliver interactive video and Web-based training.

### Efficient Case Management

**The vision:** Departments continue to maintain their own applications and databases but can share them securely with employees from other departments to meet a citizen's complete needs.

#### Case Management: City of Cleveland, Ohio

The city of Cleveland, Ohio, uses its Cisco network to connect 300 area hospitals so that they can access each other's records. Now, when a person who is homeless visits one hospital after another, possibly with the goal of coming in out of the cold, a hospital does not incur the expense of repeating tests that have already been performed. As part of a connected community, the hospital can also look up the closest homeless shelter with an available bed.

The information that a caseworker needs to help a citizen generally resides in different databases and applications, some of which the caseworker cannot access over the network. Some governments have attempted to integrate various departments' applications into a unified interface, but these efforts are often costly, time-consuming, and not entirely successful.

Cisco network solutions accomplish the same goal as application integration, without the time, expense, and risk. All government departments can share the same secure network infrastructure, just as they share buildings. Departments can selectively share information with each other as needed to meet a citizen's complete set of needs, while keeping other information private. Consider the situation in which a caseworker visiting a client's home discovers that the person is having difficulty paying rent because of a wage garnishment. With Cisco security solutions that enforce departmental access policies, caseworkers with statutory authority can log in to another department's system to help the client apply for housing assistance.

### **Citizen Empowerment: City of Almere, Netherlands**

Citizens of the city of Almere, population 175,000, receive usernames and passwords as if they were government employees. This enables them to access information and apply for job training and benefits without having to wait for one of the city's 200 employees to become available. Faster service and fewer trips to the social welfare office contribute to greater citizen self-sufficiency.

### **Telemedicine Example: Navajo Nation**

Residents of the Navajo Nation in the United States can receive specialized medical services by visiting the Indian Health Services office in Window Rock, Arizona, which is part of the Arizona Telemedicine Project. A registered nurse determines the type of care needed and then uses a Cisco video solution to establish a videoconference with a doctor at one of more than 40 hospitals. The doctor and patient can converse while the doctor asks the nurse to direct the video camera as needed. Citizens receive better healthcare, including access to specialists, and government is more inclusive of citizens who live in remote areas.

### **Citizen Empowerment**

**The vision:** Make government services more convenient by providing 24-hour, self-service Web and voice applications.

Human services agencies must serve ever-growing populations without the luxury of increasing their workforces. As a result, citizens often need to wait in long lines or phone queues before they can apply for programs or obtain information.

Government can eliminate the bottleneck by empowering citizens to acquire the information and services they need using self-service Web or voice applications. For example, to help citizens who need long-term healthcare or social services, some local governments are implementing Web-based self-assessment systems, which citizens can use to order recommended services and equipment. Citizens log in with a username and password over a secure connection to obtain information or apply for services 24 hours a day, without involving a staff person. Other governments provide self-service applications for frequently asked questions on topics such as employment rights, buying a home, and moving abroad. Even citizens who need personal attention benefit from self-service applications, because staff members who are relieved from answering routine inquiries gain more time to work on unusual inquiries.

### **Effective Health Services**

**The vision:** Diagnose and monitor medical conditions from local clinics, the citizen's home, or an emergency scene, decreasing costs and increasing convenience for ill or at-risk citizens.

Today, citizens who need healthcare can receive it only in certain locations. Human services organizations in Europe, for example, often move ill clients into medical housing for the sole purpose of regularly monitoring glucose, peak flow, oxygen, and blood pressure, among other measures.

By providing high-quality healthcare in citizens' homes and neighborhood clinics, government medical personnel can make citizens more comfortable and more likely to comply with treatment recommendations, while also reducing healthcare costs. If a patient's blood pressure reading is too high, for example, the doctor can be paged to call the person to determine the next action. In communities with outdoor wireless mesh networks, government medical personnel can remotely monitor citizens' vital signs at the scene of an accident or other incident, enabling more rapid treatment. In April 2006, the United Kingdom made more than EURO€116 million available to local authorities and their partners for the development of telecare solutions. It is expected that 160,000 people will participate. At-risk citizens will have their medical conditions monitored over the network instead of in clinics, thereby enhancing their quality of life.

## Disaster Relief: Broward County, Florida

When a series of hurricanes struck Broward County, Florida, in 2004, the government used the public school district's Cisco Unified MeetingPlace system to coordinate relief efforts. Participants could use a phone or Web browser from any location to securely join meetings, which were held regularly. Human services agencies had accurate information about where water, food, ice, and other supplies were needed. The ability to collaborate easily with other counties enabled Broward County to resume normal citizen services seven to ten days earlier than usual for this type of disaster, according to county officials.

## Information Security and Privacy

**The vision:** Protect the privacy of citizen and government information.

The need to protect citizen privacy can complicate human services delivery. For example, if a citizen applies for welfare services, the department typically needs to see tax records to verify income. However, if the citizen neglects to bring tax records, privacy policies prevent the welfare worker from accessing them when the citizen is at the counter.

With Cisco security solutions, citizens can access their own tax records and other confidential information when they visit government offices. Other Cisco Self-Defending Network technologies are designed to prevent unauthorized access to confidential citizen information, either by employees or outsiders.

## Effective Disaster Relief

**The vision:** Provide human services personnel with up-to-date information on available facilities and other resources for displaced persons, improving service effectiveness.

During natural disasters or other emergencies, human services agencies can be overwhelmed with people who need services or have no place to go. Government personnel and citizens need immediate access to up-to-date information on available shelters and medical facilities, and citizens need a way to communicate with relatives and apply for relief.

Governments can facilitate disaster relief using Cisco Unified Communications solutions. Cisco rapidly deployable communications solutions, for example, enable governments to quickly establish voice and data networks at temporary shelters, using a wired connection if available or a satellite connection otherwise. Schools that have resilient Cisco networks can become community centers where residents can communicate with relatives, apply for benefits, and find missing children. In addition, the Cisco IP Interoperability and Collaboration System (IPICS) solves the radio interoperability problem that has plagued many disaster relief efforts. Using Cisco IPICS, governments can achieve cost-effective and comprehensive communications interoperability not only among different radio systems but also with devices such as mobile phones, IP phones, public switched telephone network phones, and PC clients.

**“When governments use Cisco Unified Communications and Cisco IPICS for day-to-day operations, they do not need a separate disaster recovery plan. Resilient, interoperable communications becomes the everyday standard.”**

## The Cisco Solutions Behind the Human Network

Cisco Service-Oriented Network Architecture forms the basis of a human network designed to serve, protect, and foster thriving communities while reducing costs. Human services and other government agencies can share the costs of a network infrastructure and also share services such as electronic case management, eligibility assessment, document and record management, electronic health records, and business management applications. Cisco Self-Defending Network technologies protect the network from infections and data theft, helping to ensure privacy and continuity of operations for vital human services. Other Cisco security technologies enable human services agencies to share information with other organizations when appropriate, keeping it private otherwise. The network has the intelligence to enforce each agency's policies for access control and data protection.

The benefits of Cisco core technologies include:

- **Secure information sharing:** By enabling authorized employees to securely access information in other departments' systems, the Cisco network improves productivity and increases service effectiveness. When the proper access controls are in place, a single employee can access the systems needed to set up housing, federal assistance, employment assistance, and healthcare services for a family that has been displaced by a disaster.

- Ability to deliver rich content: Cisco networks provide the QoS to support voice, video, and data on the same network. A citizen with impaired mobility can participate in distance learning over a TV with a cable connection rather than have to struggle with transportation to travel to a class. A school nurse can send video of a child with worrisome symptoms to a government doctor to avert the spread of a communicable disease.
- Security: Cisco access technologies protect citizen privacy and help ensure compliance with legislative mandates.

**Cisco Unified Communications**

Communicating and collaborating are the foundation of effective human services, and easy-to-use Cisco Unified Communications solutions provide a wide range of needed capabilities. IP telephony, voicemail, and collaboration solutions help improve communication and teamwork while reducing costs. Advanced call processing and contact center solutions make it possible for citizens to more quickly obtain information such as benefits eligibility and referrals. Cisco video telephony and Cisco TelePresence solutions enable telemedicine, remote counseling, and meetings that are timelier and less costly.

The benefits of Cisco Unified Communications for human services agencies include:

- Reduced costs: Voice over IP reduces total cost of ownership compared to private branch exchange systems or Centrex.
- Greater responsiveness: Cisco presence technology can show which experts in a particular department are available right now and how to reach them. An employee can drag the name of available resources into a window to easily initiate a recorded voice, video, and Web conference (Figure 1).
- Rich media: An agency can use its network for digital video as well as for voice and data. Video capabilities can be used for recording and retrieving hearings, arraignments, and interviews conducted by child protective services and other agencies.
- Optimized use of human resources: Specialists such as child psychologists and addiction counselors can use Cisco video solutions to work with clients in remote or understaffed areas.
- Cost-effective training: Supervisors can train remote employees using Cisco Unified MeetingPlace, which combines voice, video, and Web collaboration.
- Improved citizen services through single-number contact centers: With Cisco Unified Contact Center, state and local governments can provide a single number that citizens can call to get a referral to any service they need (see sidebar, Single-Number Contact Center: A State Health and Human Services Commission).

**Figure 1** Cisco Presence Technology Enables Employees to Quickly Conference in an Available Employee with the Needed Skills.



## Single-Number Contact Center: A State Health and Human Services Commission

A large state's Health and Human Services Commission wanted to help its citizens locate critical social services, such as financial assistance, food, shelter, childcare, jobs, or mental health support. The state's Area Information Centers (AICs) had separate phone systems, making it difficult to share agents and resources. The commission consolidated the AICs into a single 2-1-1 contact center using Cisco Unified Contact Center Express, which intelligently routes calls to agents with the appropriate skills. If one center receives a call from someone who speaks Mandarin Chinese, for example, the agent can quickly conference in a Mandarin-speaking agent at another center. Now, the commission provides all citizens with convenient access to services, 24 hours a day. In addition, toll costs are hundreds of thousands of dollars less than they would be with a traditional contact-center system.

## Cisco Wireless Solutions

Human services agencies can take advantage of indoor wireless hotspots as well as regional outdoor wireless mesh networks from Cisco. The benefits of outdoor wireless access for human services are:

- Improved productivity: With secure wireless connections, caseworkers in the field can access the information and services they need as they meet with citizens, rather than having to return to the office to log in and find resources.
- Enhanced disaster response: Human services personnel can use their wireless devices in the field to access real-time information such as housing and supplies availability, locations of doctors, and more.
- Enhanced service effectiveness: A police officer who arrests a juvenile suspect can use Cisco presence technology over the wireless network to find the caseworker's current contact information and initiate a conference to discuss appropriate action. Similarly, citizens can access government resources at the point of need, such as at the scene of a medical emergency or at home after accepting a housing offer.

## Conclusion

To serve citizens in need, human services organizations continually assemble temporary human networks consisting of people from different agencies. By connecting citizens and employees to each other and to information, Cisco solutions help human services agencies provide more holistic service to all citizens, increase case management efficiency, improve healthcare service, and facilitate disaster relief. The result is a connected community with a focus on effective service, inclusion, and citizen empowerment.

For more information on Cisco solutions for state and local government, visit: <http://www.cisco.com/go/localgov>



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