Solution Overview

Cisco Virtual Citizen Services: Enhance Service Delivery While Reducing Costs
Cities around the world are transforming themselves into Smart+Connected Communities, using their IP networks to achieve economic, social, and environmental sustainability. This white paper, intended for local, regional, and central government executives and IT professionals, explains one aspect of Cisco® Smart+Connected Communities called Cisco Virtual Citizen Services.

The goal of Cisco Virtual Citizen Services is to maintain or enhance service levels while reducing the costs of citizen interactions. One approach is providing a single phone number, such as 115 or 311, for any nonemergency request, and giving agents a knowledge base and tools to reach out to available experts.

Another approach is adding click-to-chat or click-to-be-called capabilities to the city web portal. For citizens who prefer face-to-face interaction with government, you can set up telepresence kiosks in unstaffed service centers. In countries that are consolidating municipalities, citizens can continue to visit their local town hall, even though their government service representatives may be farther away.

Opportunity: Interact with Citizens Anywhere, On Any Device

The trend in local government is to consolidate offices to reduce costs. The challenge is how to maintain or even improve service levels for citizens who need help with forms, taxation advice, legal advice, or answers about social security, disability payments, pensions, or other programs.

For some citizens, the answer is single-number contact centers. Others like the convenience of government web portals that provide buttons to initiate web chat or request a call from the first available agent.
A significant portion of citizens still prefer to interact with government face to face, especially those who did not grow up in the Internet era, or who live in areas without broadband access. But some of these residents cannot or do not want to travel to another town. Government can cost-effectively interact with these citizens by setting up telepresence kiosks in unstaffed citizen service centers.

The main benefits of Virtual Citizen Services include increased citizen satisfaction, lower costs, and extended reach into rural areas.

**Solution Overview**

**Vision and Strategic Goals**

The vision of Cisco Virtual Citizen Services is to provide convenient, cost-effective access to government representatives from anywhere, using any device: phone, laptop, smartphone, tablet, or government-owned telepresence kiosk.

Strategic goals for Cisco Virtual Citizen Services programs include:

- **Keep the experience very simple for citizens.** Citizens who prefer phone interactions should be able to dial an easy-to-remember number, such as 115 in Germany. Those who prefer the web should be able to launch a web chat session or have an agent call with one click of a button. Citizens who want to interact face to face by telepresence should be able to just walk into a nearby facility and see the remote agent face to face as if the agent were in the same room. Citizens should not need to take any action to connect with the agent, not even pressing a button.

- **Develop a knowledge base for agents to provide accurate information.** Agents use the same knowledgebase whether they interact with customers by phone, web chat, or telepresence. Make sure the knowledgebase is very simple to maintain and use.

- **Empower agents to reach out to experts throughout government for quick answers to citizen questions.** Agents should be able to see which experts are currently available and then just click to send an instant message or talk by phone.

- **Keep interactions confidential.** Follow best practices for physical and network security.

Table 1 summarizes the benefits of Cisco Virtual Citizen Services to government and citizens. Cisco Virtual Citizen Services lower costs while maintaining service levels.
Operational Models and Scenarios

Smaller municipalities often staff the contact center with their own employees, while larger municipalities and public agencies tend to work with outsourced service providers. Many cities combine internal employees and outsourced services. With IP-based contact centers, agents can work from any location, even home, making it easier to interact with citizens outside normal business hours.

If you offer telepresence-based services, agents work in a central location that has telepresence systems. The best approach is to start with a few locations, with a few agents focused exclusively on telepresence interactions. Once the program is established, you may want to integrate telepresence interactions into your overall contact center strategy.

Table 1
Benefits of Cisco Virtual Citizen Services

<table>
<thead>
<tr>
<th>Government Benefits</th>
<th>Citizen Benefits</th>
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<tbody>
<tr>
<td>Maintains previous service levels despite reduced budgets</td>
<td>Makes it easier to obtain information from government</td>
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<tr>
<td>Centralizes resources to achieve economies of scale</td>
<td>Provides choices for interaction: voice, web, or telepresence kiosk</td>
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<td>Widens the knowledge base</td>
<td>Offers single phone number or government portal for all types of service requests</td>
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<td>Increases access to government in rural areas</td>
<td>Shortens waiting time to see an agent by minimizing travel time</td>
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<tr>
<td>Provides longer hours without increasing costs</td>
<td>Accelerates issue resolution because employees can quickly find answers using knowledge base and instant messaging</td>
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<tr>
<td>Reduces building energy consumption and carbon footprint</td>
<td>Increases rate of first-call resolution</td>
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<tr>
<td>Increases worker productivity</td>
<td>Collects information useful for identifying trends</td>
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<tr>
<td>Reduces real estate costs</td>
<td>Helps deliver consistent information through all citizen-interaction channels</td>
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<tr>
<td>Creates a positive image for government</td>
<td>Makes it easier to obtain information from government</td>
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Here are four use cases for Cisco Virtual Citizen Services:

**Use Case Scenario 1:**
**Citizen Calls the Contact Center**

Alberto wants to know what to do to renew his ID card. He dials the three-digit number for the municipality, and the next available agent answers the call. When Alberto asks his question, the agent looks up the answer in the knowledge base, which is part of the agent desktop. If the knowledge base does not contain the answer, the agent consults an online directory to find an expert who is currently online, and then just clicks to send an instant message or call the expert. In a week, Mary can pick up her passport at the Smart Work Center.

**Use Case Scenario 2:**
**Citizen Visits Government Web Portal**

Beverly moves to a new town and needs to register as a resident. Instead of driving to city offices, she visits the town’s web portal to find the form and begin completing it online. When she has a question, she clicks the “Call an Agent” button and enters her phone number to receive a call back from the first available agent. If Beverly wants help completing the form, the agent can invite her to join a web collaboration session by sending her a link in the chat window. She just clicks the link to join and begin sharing her desktop.

**Use Case Scenario 3:**
**Tourist Visits Unstaffed Citizen Service Center**

Deborah is visiting the region on holiday and wants information on local attractions. She visits the unstaffed service center, where a remote agent greets her on the telepresence system. After Deborah indicates the language she speaks, the agent transfers the telepresence session to someone with that skill.
Use Case Scenario 4: Resident Visits Unstaffed Citizen Service Center

When planning a home-based business, Charles needs advice about licensing and taxes. He bikes to a local citizen service office. As he enters the center, an IP video surveillance camera detects his presence and alerts a virtual concierge miles away in the central citizen services center. The concierge greets Charles face to face on the telepresence system and invites him to take a ticket from the queuing system (Figure 1).

While waiting in the reception area, Charles can watch short videos about local government services on a digital media system. When Charles’ number appears on the screen, he enters a small private office to interact face to face with a remote agent, using telepresence (Figure 2). The experience is very simple: Charles does not need to take any action, not even pressing a button.

Charles can also share documents with the agent using a document camera, and the agent can accept the completed document for processing. If Charles needs a copy, the agent can print it in the service center for Charles to take home.

Costs are far lower than if the center were staffed. One reason is that a pool of agents at city hall interacts throughout the day with people in citizen service centers throughout the region, increasing their productivity.
Functional Architecture

Figure 3 shows the network foundation for Cisco Virtual Citizen Services. Citizen service offices connect to the central office at city hall over the government’s own Multiprotocol Label Switching (MPLS) WAN. This network is designed to be scalable and secure, and provides the quality of service (QoS) to give priority to latency-sensitive voice and video traffic. The telepresence systems operate over the same network. To keep it simple, the telepresence connection with each outlying center is always on during center operating hours. Citizens simply walk up to the kiosk and begin interacting with the agent face to face. They do not even need to push a button.

Citizens can also interact with the agent using smartphones or laptops with video capabilities. To initiate the connection, they visit the web portal with their video device and click a button for self-service options or to connect to the next available agent.
Technical Components

Major technology components in the Cisco Virtual Citizen Services solution include:

- Cisco Unified Contact Center: Routes citizen calls to the first available agent
- Cisco Unified Customer Voice Portal: Prompts citizens who use the phone to request the needed service, using natural language phrases such as “Tax Assistance” or “Pensions”
- Cisco TelePresence® Systems: Creates an in-person experience with ultra-high-quality video and audio
- Cisco Digital Signage solution: Staff at the central service center use the intuitive Cisco Digital Media Manager software to create and schedule content to play at the remote service centers, such as descriptions of available government services and answers to frequently asked questions. Content plays on high-definition displays attached to the IP network through Cisco Digital Media Players.
- Medianet: This is an underlying network with the intelligence to deliver an excellent video experience without interfering with the performance of other government applications on the network.
Case Study: Guldborgsund Kommune

Guldborgsund Kommune is a Danish municipality with 607 square kilometers and more than 63,000 residents. The municipality previously maintained six staffed citizen service centers. When the budget decreased, Guldborgsund could no longer staff the centers and sought an innovative approach to maintaining service levels.

The municipality found its solution by providing telepresence kiosks in the existing service centers. Agents now work from a central location and can receive citizen phone calls, respond to customer chat requests on the web portal, and act as a virtual receptionist or service center agent on telepresence units in the remote citizen service centers.

Guldborgsund expects to save the equivalent of US$100,000 the first year and twice that amount in subsequent years, while providing the same level of citizen service as when the centers were staffed. And despite lower staffing levels, citizens now enjoy longer office hours.

For More Information

To learn more about Cisco Virtual Citizen Services, visit: http://www.cisco.com/web/strategy/smart_connected_communities.html

To discuss how your city might begin offering Cisco Virtual Citizen Services, contact your local Cisco account manager or authorized Cisco partner.