

Cisco Smart+Connected Communities: Envisioning the Future of Cities Now

The world is changing more quickly and in more complex ways than perhaps ever before. Cities are facing dramatic social, economic and environmental challenges. People are moving into cities in legion numbers to find new opportunities. To keep pace, cities are seeking more efficient ways to manage infrastructure and processes and offer citizen services, typically on leaner budgets.



City leaders must prioritize public safety and security, clean air and water, education and healthcare. They must optimize transportation, utilities, waste management, street lighting and other public services. They are also charged with protecting resources and making processes and outcomes greener.

New ways of thinking are required to reach this balance and openness and adoption of new solutions that, by definition, disrupt the status quo. These alternative approaches will need to break down silos between city agencies, gather and share a tidal wave of data about operations, infrastructure and people. And what good are all these without an atmosphere of social inclusion—to attract and retain a vital, productive citizenry and drive economic health and job creation?

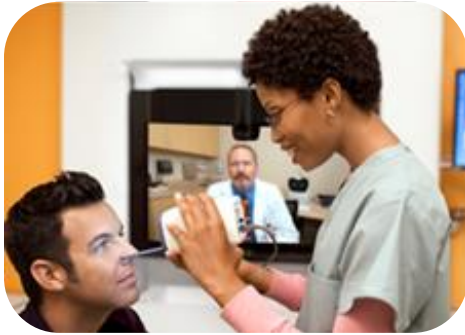


Cities are not powerless in the face of these pressures. In fact, there are enlightening opportunities within the challenges. Among city leaders' greatest allies is networking technology. As other costs soar, the cost of network connectivity—processing power, speeds, data storage and bandwidth—continues to fall. Meanwhile, mobility and cloud are making it easier to connect on the go. The network is emerging as the logical platform on

which to architect solutions to address the many goals and responsibilities of cities today and change the way they will grow and thrive.

Helping Cities Envision the New Global Urban Services Industry

The vision for smart cities offered by Cisco is of an integrated urban information and communication technology (ICT) overlay on a city that can support delivery of connected urban services and allow for efficient management of those services on a global scale. Cisco helps cities gather, share, understand and act on data from and with other agencies, from and with city residents and visitors, and from and with business and social organizations. By leveraging the Internet of Everything, cities can integrate people, processes, data and things to create safe and vital places to live, work, learn and play.



Partnering for Innovation and Success

Cisco's engagement in smart-city issues is championed by the Smart+Connected Communities (S+CC) initiative under the Cisco Industry Solutions group. Working closely with the Internet of Things group, the Services Platform Group and other departments within Cisco, S+CC is developing a growing portfolio of city-oriented solutions.



But no company can do this alone. While these solutions are based on Cisco networking and cloud computing capabilities, they also incorporate a host of specialized applications developed by or with key partners in the S+CC ecosystem. These applications leverage the partners' specific areas of experience and domain expertise, resulting in solutions that are finely tuned to address key challenges faced by cities today. Cisco engages with both global and local partners to extend its expertise into such areas as analytics in public safety and traffic management,



citywide wired and wireless networked Internet access, smart parking, smart lighting with multi-service nodes, integrated operations centers, location-based information, remote access to government agency services, and a host of other urban services.

Addressing Complex Challenges Worldwide

Cisco has deployed solutions in many cities worldwide—some 120 deployments of varying sizes. Lighthouse cities—those with multiple solutions deployed—include Barcelona in Spain, Chicago and Dallas in the U.S., Copenhagen in Denmark, Hamburg in Germany, Dubai in the UAE and a number of others. Solutions deployed in these cities include: City Wi-Fi, City Parking, City Traffic, City Lighting, City Operations Center and City Safety and Security.



Some of these cities also extend connectivity to buses and bus shelters, to smart garbage cans to reduce waste management costs, and to other sensing apparatus to monitor and manage their water systems. The connection of mobile devices to a City Wi-Fi network also allows location-based information distribution and capture between citizens and city agencies and businesses.

Helping Cities Compete

In addition to focusing on the build-out of ICT infrastructure within a city, Cisco is also working with cities to develop their overall ICT strategy that will allow them to compete on a global scale. This is particularly critical for cities in the emerging world.

As part of the ambitious Delhi-Mumbai Industrial Corridor (DMIC) development in India, for example, the Indian government plans to create a series of smart industrial cities in which next-generation technologies converge across infrastructure sectors to create a global



manufacturing and trade hub. It also creates a significant opportunity for Cisco, which has its own smart-city development center in Bangalore.

As the competition among communication technology and service suppliers for the smart-city market gets hotter, Cisco continues to expand its technological expertise and the strength of its partner relationships to become even better equipped to address the growing demand for smart-city solutions and benefits worldwide.

For more information on the Cisco Smart+Connected Communities initiative, visit <http://www.cisco.com/go/smartconnectedcommunities>.



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