

Smart City Living Transforms the Urban Landscape

Cisco helps make the world's cities more livable, one community at a time.

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With 10,000 people per day migrating to the world's urban areas, cities everywhere are **seeking** ways to transform their increasingly congested landscapes into **safer, smarter, and healthier environments that better serve their residents.**

This historic population shift is driving an ongoing global movement toward smart, connected cities where secure networks link everything from office buildings to transportation infrastructures, and intelligent data-management foundations are buoyed by the Internet of Things (IoT).

Just as the digital age has transformed business and consumer lifestyles, smart cities promise to dramatically alter how public services such as education, health care, and entertainment are delivered, enhancing residents' quality of life and supporting sustainable urbanization. At the same time, smart cities can be a trigger for significant economic growth by **improving** city management, **creating** new revenue opportunities, and **driving** efficiencies that result in cost savings.

Cisco is currently working on digitization-acceleration efforts involving smart cities in 17 countries. Navigant, a research and **consulting** firm, named the company a top smart-cities leader.

"With urban areas around the world undergoing such rapid growth, city leaders are charged with the necessity to shore up both physical facilities and systems as well as accommodating the digital revolution now underway," says Anil Menon, global president of Cisco's [Smart+Connected Communities](#) initiative.

The widespread availability of low-cost sensors and advanced networking technologies is fueling the IoT phenomenon and helping shape the smart, connected city market. Gartner, the research and advisory firm, projects that by 2020, 9.7 billion devices—including buildings, cars, streetlights, and parking meters—will be connected in smart cities around the globe.

This vision for smart, connected cities comes at a time when the world is in major transition and needs to sustainably balance social, economic, and environmental resources more than ever before. Experts say the ongoing urban migration is taxing existing infrastructure and damaging the environment. According to a U.N. State of World Cities report, more than 60 percent of the world's population will be living in cities by

2050, which translates into 2 percent of available land being occupied by people **consuming** nearly three-quarters of global resources.

In addition, at least 100 new cities will become home to more than one million residents by 2050. This massive wave of urbanization is expected to take a heavy environmental toll; research shows that cities consume 75 percent of the world's energy and are responsible for 80 percent of greenhouse gas emissions.

Building Smarter, Better Connected, More Livable Communities

Those embracing the smart digital transformation counter these challenges by leveraging **a steady stream of real-time information** and communications technology to improve life in urban environments. With the right network infrastructure in place, cities can direct traffic flow more efficiently and come up with clever ways to provision basic services such as streetlights, water, and waste management. Intelligent sensors and IoT's big data capabilities can be used to improve road infrastructure, allowing cities to proactively monitor pavement and bridge conditions to stay abreast of repairs.

Intelligent networks can also power interactive digital kiosks and mobile applications, serving up real-time information that helps residents and visitors connect while equipping local police and fire departments with more efficient response networks.

Adelaide, Australia, is piloting a variety of smart-technology projects throughout the city to deliver a range of real-time services to residents. A smart **environment-monitoring** implementation is collecting data on such factors as carbon dioxide, dust, sound, and temperature and making it freely available to spur the design of solutions to enhance city living. A smart-parking app lets city drivers locate and pay for parking via smartphone, making parking more accessible and convenient while allowing city officials to effectively monitor and manage usage. In addition, the city's smart-lighting pilot is expected to reduce energy consumption via real-time monitoring as well as automated and programmable remote control.

Adelaide is one of the many urban centers that have partnered with Cisco to develop blueprints for smart, connected communities. In fact, Cisco is currently working on digitization-acceleration efforts **involving** smart cities in 17 countries. Navigant, a research and consulting firm, named the company [a top smart-cities leader](#).

"If cities are to address the gap between needs and resources, both public- and private-sector institutions must collaborate to develop creative solutions that leverage the speed and reach of an integrated digital network to capture and share important data and deliver urban services more efficiently," says Cisco's Menon. "And they need to do so while preserving the characteristics that make each city unique."