Cisco Digital Network Architecture for Cities 3.0

Benefits

- **Improve quality of life and livability** in your city with intelligent, sensor-based services.

- **Increase citizen engagement** through easy access to city services, education, training, and job opportunities.

- **Enhance awareness, collaboration, and decision making,** which helps optimize city operations and planning, and improves city efficiency.

- **Increase city revenues and lower costs** with better infrastructure management.
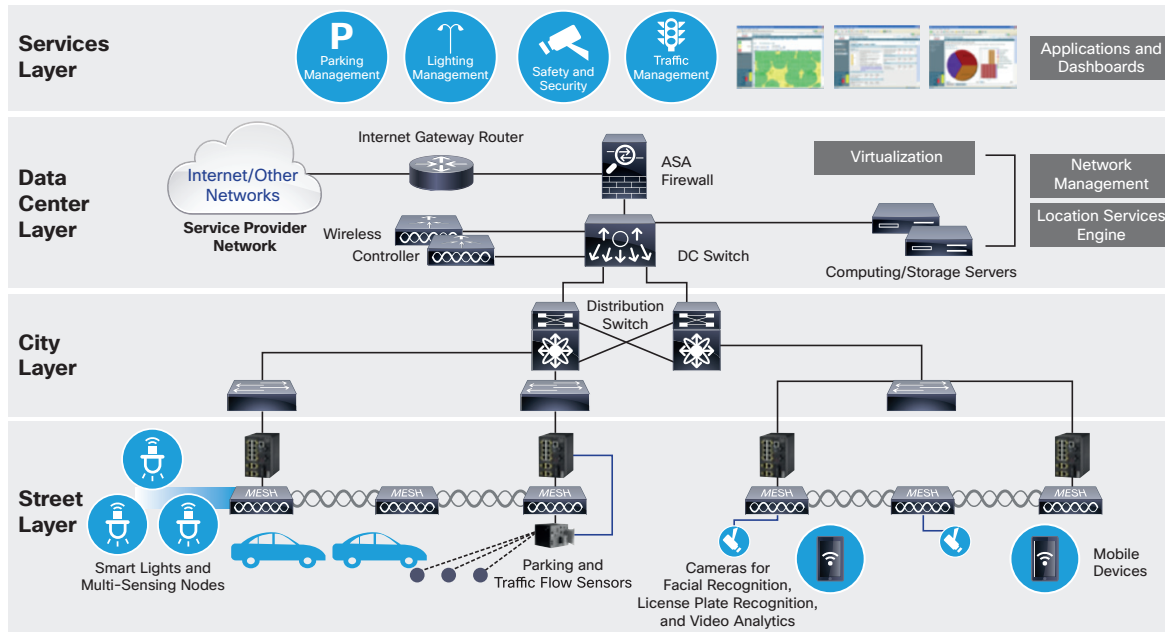
Improve Quality of Life with the Internet of Everything

While driving in to the city for date night, a woman checks her smartphone for available parking and directs her husband to a spot right in front of their favorite restaurant. Across town, a man leaving work checks traffic feeds to plan his fastest route home. Meanwhile, a city worker checks garbage can sensors to see which bins are full and require pickup.

Today, people have high expectations for where they live. They want immediate access to the city services they need. They want it to be easier to live greener. They want to use their favorite technology to help them live smarter. Now they can, with Cisco® technology.

Cisco Digital Network Architecture for Cities (Figure 1) is a foundational infrastructure of the Internet of Everything (IoE) for cities, the networked connection of people, process, data, and things. By connecting services to a shared and intelligent infrastructure, you can solve your city's most critical problems, such as parking, traffic management, lighting, water, and waste management. Air, noise, and water-quality sensors provide insights to help agencies make better sustainability plans. At the same time, you can provide citizens with Internet connectivity and access to real-time information about services, such as traffic and parking. All of which improves the overall quality of life in your city.

Figure 1. Cisco Digital Network Architecture for Cities Solution Architecture

Unify Your Infrastructure, Connect Your City

A typical Cisco Digital Network Architecture for Cities solution consists of:

- Core infrastructure – switches, routers, and unified communications platforms

- Wi-Fi infrastructure – wireless access points and controllers

- Network management applications, such as Cisco Prime™ products

- Location services engine to deploy location-based mobile services

The solution supports multiple use cases in the area of city infrastructure management, including:

Public Wi-Fi – Citizens can access the Internet over their smartphones, tablets, and other computing devices when they are in public spaces and on the move: for example, to view maps, local business information, or educational content.

Smart Lighting – Street lighting systems can use sensors to control when lights power on and off, based on a time schedule or natural-light sensing. This can significantly lower energy usage and associated costs.

Smart Parking – Wireless sensors notify drivers of available parking and help eliminate the need for circling. Live video feeds help parking enforcement officers work more productively.

City Safety and Security – Video cameras with capabilities, such as face recognition, license plate recognition, and video analytics, can help city operators and law enforcement agencies detect and respond to incidents more quickly.

Smart Traffic – Wireless sensor networks provide a real-time view of live traffic conditions and incidents to help dramatically reduce congestion, response time, and time to recovery.

Next Steps

For more information, contact your local Cisco account representative or authorized Cisco partner, or visit http://www.cisco.com/go/smartconnectedcommunities.