

How Smart Cities Use LTE and 5G

Municipalities are actively deploying smart city technologies to augment critical infrastructure. They're utilizing real-time data from thousands of smart devices to streamline operations, increase efficiency, and improve quality of life — benefits that require always-on and highly secure connectivity. Cradlepoint's NetCloud Service and wireless edge routers unlock the power of 4G LTE and 5G to enable municipalities to quickly deploy and centrally manage widely dispersed smart city systems.

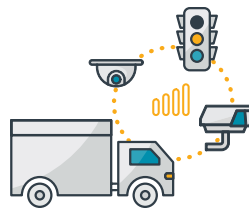
SOLUTIONS

Wireless edge routers ■ Cloud-based management



Edge computing

By shifting key components of computing and application workloads to the network's edge, smart cities enable critical systems to seamlessly integrate in real time. Smart meters and sensors connected through wireless edge routers can be monitored and managed centrally and also process analytics, run applications, and more on site.



Intelligent transportation systems

Intelligent Transportation Systems (ITS) and Advanced Traffic Control Cabinets (ATCC) — which include technologies such as traffic signal controllers, traffic flow meters, and video cameras — help traffic move quickly and smoothly through cities and towns. Reliable, secure, cloud-managed LTE and 5G solutions help agencies manage traffic data and troubleshoot issues rapidly.



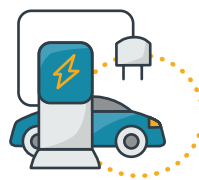
Private Cellular Networks

In many situations, smart city systems deal with sensitive data that requires secure separation from the public cloud. A Private Cellular Network supporting LTE and 5G provides complete control of the network, enables layers of security that aren't possible over Wi-Fi or public networks, minimizes traffic congestion, boosts performance and Quality of Service, and greatly reduces monthly costs.



Green energy applications

Communities that invest in new green infrastructure and power generation technologies, including roof-top solar installations, remote wind farms, and smart grid services, can use highly flexible LTE and 5G solutions to monitor emissions, optimize electricity distribution, and ensure efficiency 24x7.



Electric vehicle charging stations

To accommodate electric vehicles (EVs), municipalities and businesses are rolling out charging stations in parking garages, public parks, and many other locales. Ruggedized cellular routers provide flexible connectivity, are small enough to fit inside space-limited kiosks, and are durable enough to work consistently in rugged environments.



Kiosks and digital signage

Many smart city systems — including traffic, public transportation, public safety, and more — generate information that can be publicly accessed through kiosks and digital signage. An LTE- or 5G-based wireless edge router provides IoT devices with the connection flexibility, centralized management, and network security needed for widely dispersed deployments.