Smart City Technology Challenges

- Lack of reliable, secure & consistent wireless connectivity.
- Inconsistent and expensive current mobile wireless solutions are creating a digital divide.
- Lack of control on when, how and where to deploy reliable and consistent connectivity that enables mission-critical applications, such as smart transportation, for better quality of life to the larger community.
- Disparate city networks are dedicated to supporting silo applications, creating connectivity and inefficiencies.

Private LTE Network for Wireless Connectivity

Current City Pain Points: wireless connectivity in buildings, tunnels, transportation hubs and other city properties, and support for large events, such as fairs and concerts, with numerous connections and high data usage.

Approach: deploy a CBRS wireless network in above, affected areas.

Applications: mobile users (neutral host), and phasing - begin with a data network with support for IoT and upgrade to support voice.

Private LTE Network for IoT

Current City Pain Points: providing cost-effective solutions for surveillance, IoT, health and human services, and environmental monitoring.

Approach: deploy a wide area wireless network utilizing CBRS.

Applications: consolidated network for city IoT applications, such as utilities, transportation & video surveillance.

Solving the Digital Divide with Fixed Wireless

Current City Pain Points: public connectivity for the community and extended broadband access to underserved communities, and economic development through better broadband access.

Approach: deploy a fixed wireless network utilizing CBRS.

Applications: fixed wireless internet for underserved city populations and fixed wireless backhaul to supplement fiber.

What is CBRS?

Citizens Broadband Radio Service – or CBRS – is a three-tier shared spectrum allocation paradigm.

CBRS allows municipalities to deploy, provide and control their own reliable, secure and mobile LTE network.

The network is reliable, secure and offers low latency, enabling applications such as:

- IoT for smart city initiatives such as more efficient use of utilities, improved transportation and video surveillance, among others;
- VR/AR applications that improve citizens’ quality of life and tourist experiences,
- Wireless connectivity in buildings, tunnels, transportation hubs and other city properties, and others

Connectivity You Can Count On

Leveraging a wide swath of spectrum (150 MHz), CBRS utilizes LTE technology – which currently serves an ecosystem of 3 billion+ users – to more efficiently deliver the same high reliability, service quality, and security many business and mission critical networks rely on today. Many CBRS Alliance member companies have demonstrated the massive coverage and capacity opportunities offered by CBRS networks, including a recent trial that featured a 360-degree video streaming from within a high-speed vehicle.

Comparative Unit Economics Of Outdoor & Indoor Deployments

![Comparative Unit Economics Of Outdoor & Indoor Deployments](image)