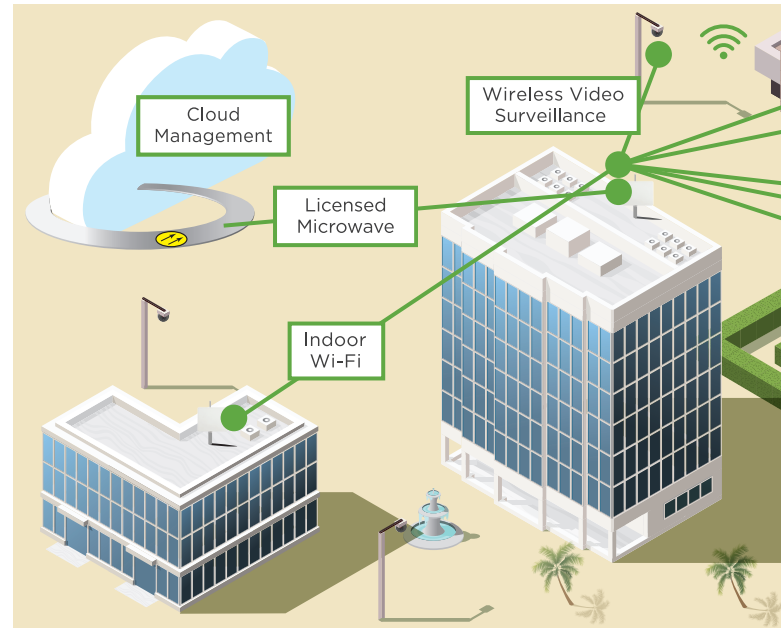




Wireless Connectivity
Solutions for Smart Cities

CITY PLANNERS ARE PROVIDING A HIGHER STANDARD OF LIVING TO THEIR CITIZENS. Smart City initiatives increase safety and improve city services, while providing improved operational security. Some initiatives generate new revenue streams for municipalities. These programs are prioritizing the technologies that are proven to measurably improve the quality of life, increase efficiency and reduce cost to the community. While deployed in major cities, some of the most dramatic achievements have been made in smaller communities where applications are deployed in “greenfield” environments.

Smart cities invest in technologies that enable collaboration. Communities can share sensor data, and leverage a common IP-based communications infrastructure. Wireless broadband provides the high-speed connectivity needed, and provides a proven solution that can be deployed at a fraction of the cost and time of fiber or wired connectivity.



Applications:

Complete Coverage – Public gathering areas or entire cities can be blanketed with high capacity connectivity. Smart City applications include:

- Automatic License Plate Recognition (ALPR)
- Asset tracking
- Automatic Metering Infrastructure
- Critical Infrastructure monitoring and control
- Digital Signage
- Enterprise indoor and outdoor Wi-Fi
- Events and festival Wi-Fi
- Fire station connectivity
- Infrastructure Monitoring and Control
- Intelligent Traffic Systems (ITS)
- Parking Lot Automation
- Public Wi-Fi connectivity
- Street Light Controls
- Traffic Control
- Video Surveillance

Municipal departments benefit from IP-based applications:

- First responders
- Health and human services
- Parks and recreation
- Public Works
- Streets and sanitation
- Water

Benefits:

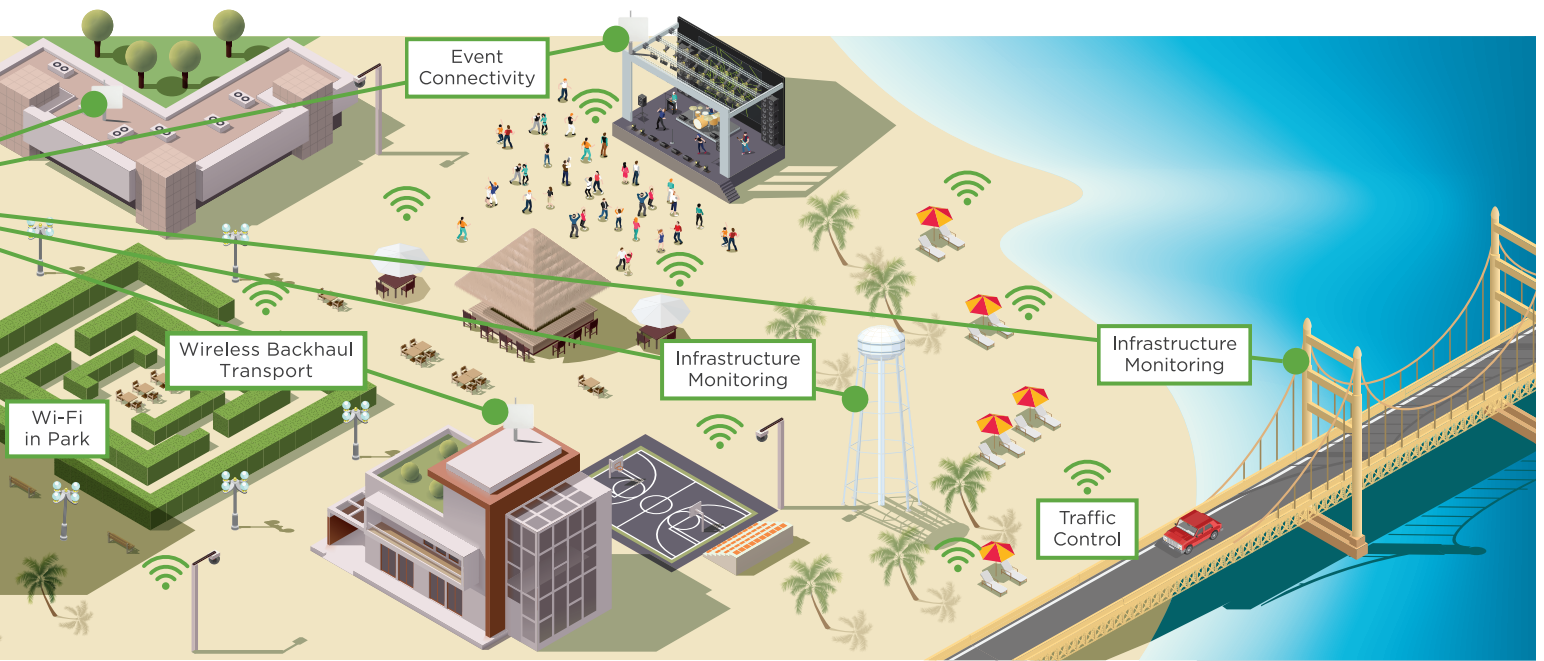
High Capacity – Wireless networks can be designed to support simultaneous downloading of streaming video, uploading of video surveillance information, conducting voice calls, and sharing data.

Secure – The network can use specified frequencies for public safety and access networks with password authentication and encrypted data.

Affordable – Wireless solutions provide an attractive return on investment when compared with leased lines, fiber, copper, or other solutions.

Reliable – With millions of wireless broadband modules deployed around the world, Cambium Networks solutions are proven to work in any climate or application.





Cambium Networks Technology Ensures High Throughput in Noisy Environments

- **Adaptive Wi-Fi Architecture** – lets you decide on the controller implementation
- **Beam forming and beam steering** – isolates the signal from ambient noise to maximize throughput
- **Frequency Re-Use** – maximizes the use of available frequency across thousands of users
- **Intelligent Filtering** – automatically blocks out noise to improve signal quality
- **Zero Touch Wi-Fi Provisioning** – improves the speed and accuracy of provisioning access points

Proven Solutions

Ruggedized Wi-Fi access for field connectivity

- Outdoor hotspot and Wi-Fi networks

Wide-Area licensed and unlicensed narrowband connectivity for SCADA process control and monitoring including: Wide-area process control and monitoring of IIoT critical infrastructure.

- SCADA/Serial/IP/General Purpose I/O
- Multiple frequencies (220/450/700/900 MHz)

Wide-Area Point-to-Multipoint for video surveillance and backhaul

- Video surveillance for physical security
- SCADA master aggregation and backhaul

High capacity long range Point-to-Point backhaul

- Licensed microwave and unlicensed backhaul

Single pane of glass network management

- Bird's eye view of field network
- Rapid on-boarding and provisioning of new nodes
- End-to-end performance and fault management
- Centralized password management and firmware updates

The Cambium Difference

- **Reliability** – Deploy wireless broadband with confidence that it will work right the first time and continue to work 24/7 over the long haul.
- **Scalability** – Connect thousands of individual locations with a synchronized network that enables RF frequencies to be re-used throughout the network to provide the highest level of connectivity in the least total amount of spectrum.
- **Total Cost of Ownership** – Minimize the total cost of network ownership with one IP-based wireless network comprised of licensed and unlicensed backhaul and access components that can be rapidly deployed and perform reliably with minimum maintenance cost.
- **Planning Software** – End-to-end network design using LINKPlanner for prediction of capacity and availability.
- **Sustainability** – Solutions designed to operate for years from a supplier with a proven track record of stability and sustainable product evolution.
- **Spectral Efficiency** – Provide the highest amount of information transfer in the least amount of scarce spectrum with industry award winning throughput.



ABOUT CAMBIUM NETWORKS

Cambium Networks is a leading global provider of wireless connectivity solutions that strengthen connections between people, places and things. Specializing in providing an end-to-end wireless fabric of reliable, scalable, secure, cloud-managed platforms that perform under demanding conditions, Cambium Networks empowers service providers and enterprise, industrial and government network operators to build intelligent edge connectivity. Cambium Networks' commitment to continuous innovation in wireless access is demonstrated in the millions of radios deployed in thousands of networks that benefit communities around the world. Team members also contribute to social responsibility activities to serve the communities in which they live. Headquartered outside Chicago and with R&D centers in the U.S., U.K. and India, Cambium Networks sells through a range of trusted global distributors.

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