

Modernizing utilities with the help of 4G and 5G networks

Utilities have been using wireless networks to power smart lighting projects and smart energy grids, monitor water and wastewater, help customers understand consumption, and more. The next area of opportunity: operational telecom (O/T).

Private 4G and 5G networks in particular offer great potential for reducing complexity and operational expense and meeting throughput, latency, security, and reliability requirements. But many questions are causing uncertainty and delay.

To alleviate concerns and help utilities take the next step inmodernizing their grid, gas distribution, water/wastewater, and municipal lighting systems, CTIA, Ericsson, and the rest of the CTIA smart cities experts are taking a deep dive into electric, gas, and water use cases. Read the full report, "Procuring, Connecting, and Securing Smart Utilities: An Implementation Guide with Use Cases," on Town Square, smartcities.ctia.org, today.

To further understand the **power of wireless-enabled smart utilities**, our experts are exploring:

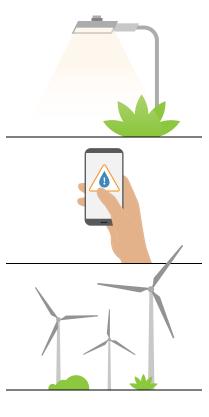
01 New use cases for private 4G/5G communication networks

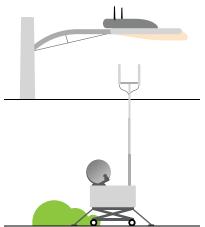
02 Engineering considerations

03 | Maintenance implications

04 Results and dependencies others have seen

Examples of live wireless-enabled smart utilities deployments:











CTIA, Ericsson, and industry smart cities experts are compiling smart utilities best practices that demonstrate the benefits of wireless networks. Key findings include:

Accelerating Momentum for Efficiency, Sustainability, and Reliability

Particularly in electric, water, and natural gas utility operations, many devices have been historically difficult or prohibitively expensive to provide connectivity for. And many used inflexible proprietary systems intended for one or two use cases, with the inability to scale to meet the requirements of other applications.

Cost-effectively building and managing a single O/T network

A smart, flexible, reliable, and secure wireless network offers transformative potential—starting by providing a foundation for more granular monitoring and control. The possibilities are even greater for smart utilities use cases. With the advent of cost-effective, private 4G and 5G networks, a utility can now build and manage a single network that covers the requirements of the vast majority of their operational telecom (O/T) needs.

Leveraging knowledge from other 4G/5G use cases

A number of utilities have made their own journeys into private cellular systems. They've been exploring how to improve the cost-effectiveness and reliability of their communications systems and power the next generation of utility O/T networks. Their experiences offer valuable lessons for designing and deploying these networks—and for maximizing their effectiveness across a wide range of utility use cases.

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