Utility Pole Management Solutions

Infrastructure owners poised to capitalize on 5G buildout face a crucial gap: scalable asset management.

Driven by looming demand for massive machine-type communications (mMTC), 5G cellular mobile technologies use small cells to enable high data rates, low latency, energy savings, expanded system capacity, and massive device connectivity. Because 5G requires dense cell coverage – up to one cell every 820 feet – the buildout boom could prove extremely lucrative for owners of pole infrastructures. Unfortunately, many pole owners still depend on aging asset management systems that are inefficient at best, and often downright cumbersome.

Pole management practices fall short of even current needs.

- **DECENTRALIZED ASSET MANAGEMENT:** Many of the responsibilities for managing and maintaining utility poles are delegated to field offices, with little enterprise-level coordination.

- **COMPLEX OWNERSHIP ARRANGEMENTS:** Not all utility poles are owned outright by a single entity; many are shared, with varying equity arrangements, further complicating decision making and equipment lease negotiations.

- **POOR WORKFLOW MANAGEMENT:** Complexities in pole ownership, lease arrangements, and record keeping have led to wasteful, interrupt-driven workflow processes.

- **OVERLAPPING REGULATORY OVERSIGHT:** Pole owners bear the burden of complying with rules and guidelines – some divergent, others redundant – published by the FCC as well as by 18 states and the District of Columbia.

- **OUTDATED RECORDKEEPING:** Owners of utility poles currently store records in a mix of media, from paper forms to spreadsheets, often with information siloed in separate repositories.
Scalable asset management transforms utility pole economies.

- **Centralize Asset Data Management:** Maintain pole attributes, ownership equity, and service status data via a secure cloud portal.

- **Drive Systematic Leasing Programs:** Store lease contracts, equipment manifests, and negotiations status information for each pole.

- **Simplify Regulatory Compliance:** Import structural support data, GIS, and other data for streamlined reviewing and reporting.

- **Improve Infrastructure Resilience:** Simplify engineering, contingency planning, and disaster protocol development for mission-critical communications.

- **Prepare for IIoT:** Build a management system that adapts easily to sensors, smart devices, and other Industrial Internet of Things (IIoT) technologies.

After decades relying on makeshift approaches, pole owners now have a financial incentive to leverage state-of-the-art asset management technologies. A cloud-based solution can display asset data from any location, while providing virtually unlimited scale.

Systems that support geospatial mapping give pole owners visibility to asset ages, conditions, and loading characteristics by service area. This, in turn, helps systematize maintenance, leasing programs, and disaster protocols. The best SaaS offerings also integrate workflow management, file-sharing, user logs, email integration, and reporting functionality, to empower stakeholders at all levels at any time, anywhere, from virtually any browser-equipped device.