Smart Cities Require Smart Streetlights

Managing a city today can be especially challenging. Making cities attractive for companies and residents, while still offering security and comfort requires city officers to carefully manage budgets so they can create opportunities and services to compete with neighboring cities.

The term "Smart City" is often used to describe the cities that adopt and leverage innovative technologies that provide: safety and comfort for residents, lower operating costs and energy usage, deploy security cameras and safety sensors, reduce traffic,, enhancing parking options and improving traffic management systems. More information is available now than ever before from smart sensors, while less energy is being consumed thanks to advanced building management systems and innovative streetlight control systems.

Startups and established high-tech companies are increasingly rushing to provide cities with new solutions,, more often proposing their own proprietary sensors, communication networks and software. On the other hand, the smartest cities are purchasing a standardized communication platform with central management software, so they can share a citywide communication network. This open, standardized approach allows all sensors and other smart city devices to communicate with each other and/or with the central management software to provide more value to the city and its residents.

Decision makers within these smart cities are asking what applications they should be deploying for such a city-wide network at a budget that will be able to support both current requirements and future enhancements? The answer is in what you see when looking through the window last time you landed by plane at night. With a light pole every 30 meters or so, networking streetlights are ideal to provide such a city-wide network. These new streetlight networks pay for themselves by enabling cities to save energy by adapting light level to the time and the activity. These streetlights also save on maintenance because they enable automatic failure identification instead of receiving hundreds of thousands of calls from unhappy residents. Also, if the cities choose the right open and standardized networking technology, they can remotely communicate with parking sensors, traffic sensors, environmental sensors, safety sensors, electrical vehicle charging stations, advertising panels, trash bins, water/gas/energy meters and other communicating devices, while receiving live data for city officers to make smarter decisions.

Many cities including Oslo, Paris, Berlin, Brasov, Lyon, DongGuan and GuangZhou, already understand the benefits their streetlight networks offer their cities. More of them are replacing conventional high-pressure sodium outdoor lights with networked LEDs, Induction Lights or Plasma Lights to drastically reduce their energy and maintenance OPEX budgets. A large part of the networked streetlight projects are based on open and standardized networking technologies that allow many manufacturers and startup companies to provide additional smart devices that can be used with existing streetlight networks.

With more than 500 projects in 17 countries, the ISO/IEC14908 networking standard is probably the most widely adopted standard for networked streetlights. This open networking standard, managed by LonMark International, is the choice for many manufacturers of light point controllers because it provides cities with a competitively priced solution. The controllers based on this popular standard can save up to 50 percent in energy costs, oftem freeing budgets, while providing cities with Big Data resources to help with future planning.

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To learn more about LonMark International and its street lighting initiative, please visit http://www.lonmark.org/connection/solutions/lighting/streetlighting.