Smart Lampposts Use Case

The EU wants to create 10 Million Smart Lampposts



ACIST

Overview

There are as many as 90 million lampposts in Europe, according to the EU and three quarters of them are over 25 years old. Street lighting accounts for up to half of some cities' energy budgets and simply installing energy-saving bulbs would save almost €2 billion (\$2.3 billion) a year.



The Idea

Under the slogan "a dozen things you can do with a humble lamppost that has nothing to do with light" the EU wants to upgrade 10M lampposts, making them solar-powered smart lampposts able to deliver a range of smart city services.

As well as providing bases for a city-wide network of 5G connected sensors to monitor vehicle and pedestrian traffic flows, the smart lampposts could host a free public WiFi network.

Aciist Approach

- High-Bandwidth to support symmetric high data bitrate
- Using a Small Form Factor Switch
- Installation inside the Lamppost
- No single point of failure
- Separate Network for each Application

- Automatic Load-Balancing and automatic redundancy
- Power source available 24/7 and support the end device with PoE
- Standard connection of end devices
- Weatherproof ready for severe environmental conditions



Results



Overall Cost

Major cost reduction compares to the budget



Full Redundant

Fully automated architecture supporting complex topology providing full redundancy



Communication Cabinet

No need for adding new cabinets.



Installation Time

Plug and Play Installation much faster than any alternative solution



Providing Power

Provide both connectivity and Power (PoE)



Better Latency

The solution latency is 100 times better compare to routing-based solution



Smart Light

Controlling the Light enable multiple security features like color changing or blinking



Less Cabling

The implementation requires about 10 times less cabling

Various Smart City Application Supported by Aciist

- Personal Safety / Surveillance
- Traffic management & Parking
- Smart Light and efficiency
- Public WiFi

- Announcement Audio & video
- Air quality
- Precise Irrigation
- App-Based Wireless Control