

The city of Los Angeles was looking to explore additional smart city projects in order to gain additional value from its connected lighting infrastructure.

"We really need better information to help us design better cities."

Dietmar Offenhuber, Northeastern University

# Customer challenge

While Los Angeles has already pioneered the use of digital, connected lighting by converting 165,000 of its 215,000 street lights to LED, and intelligently monitoring and managing 110,000 of them with the Interact City lighting management software platform, city officials felt confident they could unlock additional value for citizens with interconnected applications that use open systems.

#### Solution

Together with Philips Lighting, Los Angeles is shaping the future by exploring new smart city applications that build on the connected lighting infrastructure to realize additional value beyond illumination.

The ability to add new applications and data streams to the digital ecosystem demonstrates the power of open systems. Smart city infrastructures that employ an open systems approach use defined interfaces and de facto standards to integrate a wide range of smart devices, gathering and analyzing data from them to support new initiatives.

### Interact - Making it happen

The Los Angeles Bureau of Street Lighting and Philips Lighting collaborated on a program that uses lighting management software and a connected IoT sensor network to manage 110,000 street lights, allowing the city to derive additional value from the public lighting system. Employing an open systems approach,

the lighting infrastructure can be used to monitor environmental noise, and the insight gained can help the city deliver quieter streets for healthier, happier citizens. The pilot also monitored the lighting power grid for more reliable and responsive operations.



### Power grid quality

Network complexity, increasing power demand, and lack of effective fault monitoring increase the risk of power grid issues. Lighting power

grid monitoring used the connectivity offered by Interact City to allow the public lighting department to continuously assess the quality of the lighting network's power supply.



#### Sound advice

Environmental noise monitoring used an acoustic noise sensor that built on the Interact City ecosystem already deployed throughout Los Angeles. The

Bureau of Street Lighting could actively monitor sound levels on the street to understand activity levels, check compliance with regulations, and support the well-being of citizens.



# Lighting asset management

Interact City lighting management software supports easy commissioning of new and existing lighting

assets plus remote monitoring of performance, energy consumption, and fault detection. Know exactly what is happening where and take action immediately through a real-time, data-enabled understanding of your city lighting.



# Environmental monitoring

Continuous real-time data from IoT sensors embedded in connected street lights affords better insight and enables

action, including re-zoning, redirecting traffic, and adding more light. Interact City data provides new understandings and enables fresh thinking to make the city a better place for everyone.

# Project details

- System saves 63% on energy and eliminates 47,000 tons of CO<sub>2</sub> annually
- · Open systems approach affords the opportunity to add new applications to the ecosystem
- The city has leveraged Interact City to pilot lighting grid and street-level noise monitoring
  - · Interact City is open to integrating additional pilots and applications in the future



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