

Philips Lighting Develops Smart Lighting Technology to Stand the Test of Time

A Sierra Wireless® Street Lighting Solution

CUSTOMER CRITICAL CHALLENGE

- To evolve their connected street lighting system over the long term, with upgradable technology to make city-wide installation and control easier

SOLUTION

- Philips CityTouch-ready LED outdoor fixtures use Sierra Wireless® AirPrime® HL Series modules for connecting to the central management service.

BENEFITS

- Flexible performance: CityTouch-ready fixtures are deployable on 2G, 3G or 4G networks worldwide.
- Compact Footprint: The small design of the HL modules make CityTouch-ready fixtures compact and easy to deploy.
- Future Proof: The HL Series is based on CF3® standard, flexible form factor, allowing Philips CityTouch to quickly configure their solutions today and in the future.

PHILIPS

BACKGROUND

With over 120 years of experience in the industry and a keen, developed focus on street lighting, Philips helps you achieve your goals faster. CityTouch is used in more than 250 cities in 31 countries, and counting.



Philips CityTouch makes cities more sustainable, more efficient, and, ultimately, better places to live. Recognizing that streetlights can account for as much as half of a municipality's energy consumption, they offer a remote lighting-control system that yields dramatic savings. Their next step is to ensure longevity, with hardware options that can evolve over time, adapting to a city's changing needs, and increasing their return on investment.

Customer Challenge

Cities around the world are weighed down with old, inefficient lighting schemes that are expensive to operate, waste energy, and leave many areas, along city streets and in public spaces, feeling dark and unsafe. As municipalities begin investing in the future, creating more sustainable, more livable communities by improving public lighting is often a priority.

Philips CityTouch offers a platform, used by more than 250 cities in 31 countries, that gives municipalities a way to modernize lighting and expand coverage while reducing energy consumption by as much as 80%. Philips CityTouch software lets cities control each individual streetlight, and the system can be configured for various events and conditions. Operators can know, at any time, which lights need repair, and can fine-tune the setup based on precise data visualization and extensive analytics.

The Philips CityTouch approach is so effective, in fact, that it has been recognized internationally for its contribution to the reduction of CO2 emissions, and has been endorsed as a top sustainable solution for intelligent outdoor lighting.

When it came time to design the next generation of products, Philips CityTouch made longevity a top requirement. They wanted hardware components that could stay in place for years to come, without forcing cities to pay for technology upgrades. The Philips CityTouch platform relies on cellular communication for connectivity, so there was concern that, as cellular standards continue to evolve, street lights would start falling off the mobile networks. Philips CityTouch needed cellular connectivity that could change with the times, to deliver lasting benefits.

Sierra Wireless AirPrime® Solution

To ensure that connected streetlights stay in place for as long as needed, and still provide reliable, upgradable cellular connectivity, Philips CityTouch selected AirPrime HL Series of embedded modules from Sierra Wireless for their new LightWave system and CityTouch-ready light fixtures.

As soon as a CityTouch-ready fixture is plugged in, it instantly appears on the central CityTouch map. Operators can see the status and technical parameters of lights across the infrastructure, at a glance, and can remotely control lights in any area, individually



"The more we talked with Sierra Wireless, the more confident we became that this company really understood what we needed to not only build and launch a new generation of City Touch-ready outdoor lighting fixtures, but to also grow and evolve them over time."

Vasanth Philomin
General Manager
Philips CityTouch

or in groups. The software also provides the current lighting status, auto-notification faults, and accurate data on the energy usage of each streetlight. With HL Series modules on board, CityTouch-ready fixtures can begin to speak for themselves, saying things like "I need a repair," or "I'm dimmed to 90% of my full light capacity," or "I consumed just 30 kWh of energy last month."

FLEXIBLE PERFORMANCE

Public cellular networks are available worldwide, so using the HL Series of embedded modules as the basis for connectivity ensures compatibility anywhere CityTouch-ready fixtures are deployed. HL modules can be deployed on 2G, 3G, or 4G networks to support everything from low-bandwidth transactions, like simple light dimming or inventory management, to bandwidth-intensive applications like video surveillance and sensor monitoring. As a result, cities can mix and match capabilities as needed for a given area or neighborhood, all within the same network, and without needing to support multiple hardware platforms.

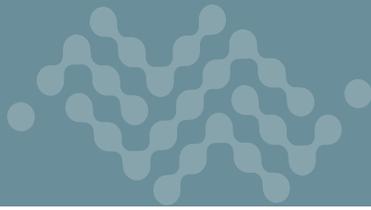
COMPACT FOOTPRINT

Because the HL Series are designed for small spaces, CityTouch-ready fixtures are both compact and easy to deploy. Having reliable cellular connectivity pre-integrated into CityTouch-ready fixtures means complete connected lighting systems can be installed in minutes. The same teams that maintain existing lights can install new and retrofit CityTouch-ready fixtures, without any special expertise in cellular connectivity.

FUTURE PROOF

The HL Series are based on the CF3™ standard providing a common flexible form factor across all variants, which means different modules with different features on different technologies can be swapped in and out on the same footprint. A single product PCB design for Philips CityTouch can therefore be forward and backward compatible between 2G, 3G, 4G technologies and application processing CF3-based module variants. As a result, Philips CityTouch can quickly configure their solutions to meet the needs of virtually any new market in future and easily add new features with minimal redesigns.

Philips CityTouch chose Sierra Wireless for the CityTouch LightWave system based on the level of global support they were able to provide, as the market leader, as well as the potential for evolution in future products with a simple migration path from 2G to 4G technologies.



Results

Sierra Wireless gives Philips CityTouch and their customers the confidence that smart, cellular-connected public-lighting networks will provide lasting value.

For Philips CityTouch, using the HL Series of embedded modules means they can develop cellular-connected solutions that adapt and grow as requirements evolve. With just one PCB design, Philips CityTouch can easily deploy in any region, on any wireless mobile network.

For the municipalities that use Philips CityTouch, having Sierra Wireless as the basis for cellular connectivity means they can count on having secure, high-availability access to their lighting network for years to come. Because Philips CityTouch-ready fixtures connect instantly, through the public cellular network, to the remote lighting management system deployment, commissioning times go from several weeks to a single day. And in the future, cities can revise and expand their public-lighting networks as needed, without having to invest in new streetlight hardware, since the HL Series inside Philips CityTouch-ready fixtures support seamless migration from 2G to 4G LTE cellular.

About Sierra Wireless

Sierra Wireless is the global leader in machine-to-machine (M2M) devices and cloud services, delivering intelligent wireless solutions that simplify the connected world. Our solutions are **simple**, **scalable**, and **secure**, and enable customers to get their connected products and services to market faster.

For further company and product information, please visit www.sierrawireless.com.