



PHILIPS

CityTouch

Public lighting

Blazing the trail for connected street lighting

With Philips CityTouch, Los Angeles remotely manages more than 100,000 street lights to create a more livable city



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Streetlights play a major role for people at night, whether they're walking their dog, driving, conducting business or visiting a restaurant. Good lighting makes people feel a lot safer, so it has become a very important aspect of the city's infrastructure.

Ed Ebrahimian,
Director, Bureau of Street Lighting,
City of Los Angeles

With **connected lighting**, the streets of Los Angeles are made for walking

Los Angeles passed an ordinance specifically to fund street lighting in 1935. Since then, the city's public lighting system has grown to include almost a quarter of a million streetlights—more than any other city in the U.S. Given that streets comprise fully 15% of the city's total area, it's no surprise that Los Angeles is known the world over as a driving city.

Great streets, great city

Mayor Eric Garcetti is determined to make Los Angeles a walking city as well. In 2015, he launched a Great Streets Initiative to revitalize neighborhoods by making the streets more pedestrian-friendly. New street lighting technology that can ensure better and more reliable lighting operations is an important part of the plan.

Ed Ebrahimian, director of the Bureau of Street Lighting, holds the responsibility for deploying new street lighting technology for the city. To support Mayor Garcetti's initiative, he went in search of a system that would increase street light uptimes, shorten repair cycles, and improve system monitoring and maintenance, all while minimizing initial and ongoing costs.

The power of accurate information

The technical challenges were formidable. The city's 215,000 street lights include more than 400 different styles distributed across 7,500 miles of roadway. Maintenance has traditionally depended on crews who scout the streets at night to identify outages—that, and calls from citizens. The bureau handles 40,000 such calls per year.

A system that could automatically and remotely notify system managers about outages would offer obvious advantages. With accurate information on street light location and type, maintenance could be drastically simplified. Repair crews could go directly to repair sites with the proper equipment and replacement parts in hand, significantly reducing response times.

After piloting systems from several different manufacturers, Ebrahimian selected Philips CityTouch, “the best product at the lowest price.” CityTouch capabilities that helped decide Ebrahimian included remote monitoring, automatic notification of outages and other events, easy installation and simple commissioning, accurate lighting asset information, integration with the bureau's existing management systems, and future-proofing through software as a service delivery.

Key CityTouch system features



Plug-and-play installation

- Automatic commissioning
- Automatic location
- Automatic data upload



Future proof



Remote monitoring



Accurate lighting data



Automatic outage notification



From pioneering LED street lighting to leading in connected lighting

Los Angeles has a long history of embracing innovations. An early adopter of LED technology, the city now enjoys the largest deployment of LED-based municipal street lighting in the world. Under Ebrahimian's leadership, the city is already taking the next step. "The time has come for us to be able to create a more connected street lighting infrastructure in the city of Los Angeles," Ebrahimian says, "and I think CityTouch does give that to us."

Making installation and commissioning a snap

One important advantage of CityTouch is ease of implementation. Installation consists of simply plugging a lightweight CityTouch connector node into a standard NEMA socket on top of an existing streetlight. The connector node works with street lights from any manufacturer, both LED and legacy—a key consideration for any city with many different types of street lights.

Commissioning is automatic. As soon as a connector node is installed, it starts transmitting location and operational information via the cellular network. Because implementation is so easy, a single work crew can retrofit as many as 500 street lights in a day.

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With this technology, it's just so headache-free. We just install it and move on.

Ed Ebrahimian,
Director, Bureau of Street Lighting,
City of Los Angeles



Keeping the lights on with remote monitoring

The CityTouch connect application offers system managers a real-time, map-based view of all connected light points via any standard web browser. CityTouch connect securely and remotely manages all connected light points, tracks their energy consumption, and continuously monitors their status.

The ability to integrate CityTouch with the bureau's existing service request system was a must-have for Ebrahimian. Using the CityTouch application programming interface (API), outage and other event notifications automatically generated by CityTouch are passed directly through to the service request system. CityTouch also sends along rich and accurate data about the location of the affected light point, its type and other specs, and the nature of the issue. None of this information was available before CityTouch, and it isn't available from any other system.

With CityTouch in place, the bureau no longer has to depend on scouting patrols or citizen reports to identify outages. The accurate data provided by CityTouch eliminates much of the on-site investigation that work crews had to perform prior to repairs, reducing response times from days to hours.

"Remote monitoring overall and CityTouch specifically plays a big role in our delivery of services, which is keeping the lights on," affirms Ebrahimian.

CityTouch: an open system



CityTouch connector node works with street lights from any manufacturer



CityTouch communicates via the mobile network: no proprietary networks



With APIs, customers can integrate CityTouch into their existing systems

Los Angeles by the numbers

215,000
street lights

400
different street
light styles

4,500
miles of illuminated
roadway

165,000
street lighting
converted to LED

110,000
connector nodes planned

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L.A. is a trailblazing city. Several years ago, they led the adoption of LED street lighting. They are doing the same thing now with connected street lighting.

Vasanth Philomin,
Public Segment Leader,
Philips Lighting



Blazing the trail to the smart, sustainable future

With more than half of its 215,000 street lights already converted to LED, and plans to connect 110,000 of those light points with CityTouch, Los Angeles is blazing the trail for cities around the world who want to make their municipal lighting operations more efficient and their streets more welcoming.

Delivering value beyond illumination

“We have seen that adding a central management system can deliver new benefits to city managers,” says Ben Ferrari, Director of Partnerships for The Climate Group, an international NGO working to create the low-carbon economy. “These range from a greater ability to manage the lighting assets and the chance to be more responsive to the needs of citizens in different locations within the city.”

Ferrari sees connected street lighting as part of the broader movement toward smart, sustainable cities. Vasanth Philomin, Public Segment Leader for Philips Lighting, agrees. “I think the next frontier in the future of public lighting is going to be all about digitizing entire workflows for our customers, and uncovering value beyond illumination while we do that.”

The city of Los Angeles leads the way

Ebrahimian is looking forward to seeing how CityTouch might help the city of Los Angeles realize just such additional value in the future. Ebrahimian has already piloted the use of CityTouch to remotely manage event-specific lighting in parks and other locations. He believes that CityTouch may be able to play a role in reducing accident and crime rates. The lighting infrastructure may be able to integrate with emergency systems, and may even be able to serve as a platform for deploying environmental and earthquake sensors throughout the city.

CityTouch is already helping Los Angeles fulfill its mission of becoming a more livable city. By keeping the lights on, citizens feel more comfortable and safe on the streets at night, and this has a positive effect on the city’s quality of life and its economic vitality. The better reliability that CityTouch brings to lighting operations may be hard to quantify, but Ebrahimian speaks passionately about its value. “I call it priceless, because if we can save one life by finding out if a light is out and fixing it right away, we’ve done our job.”

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The fact that Los Angeles has selected CityTouch sends a very positive signal to other cities. It validates connected lighting as a solution that can deliver really substantial benefits.

Ben Ferrari,
Director of Partnerships,
The Climate Group





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