TIDE
Smart Energy Solution

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Smart Street Lighting Solution

Tide expects to become a global energy IoT solution company by solving the challenges in the smart grid market amidst the ever-evolving IoT age. As one of the core IoT solution providers, Tide offers Smart power grids, energy management systems and services based on various wired/wireless communication technologies such as the PLC (Power Line Communication), RF(Radio Freq.), and Cellular Mobile Technologies based.

Applications

Street Light

Park light

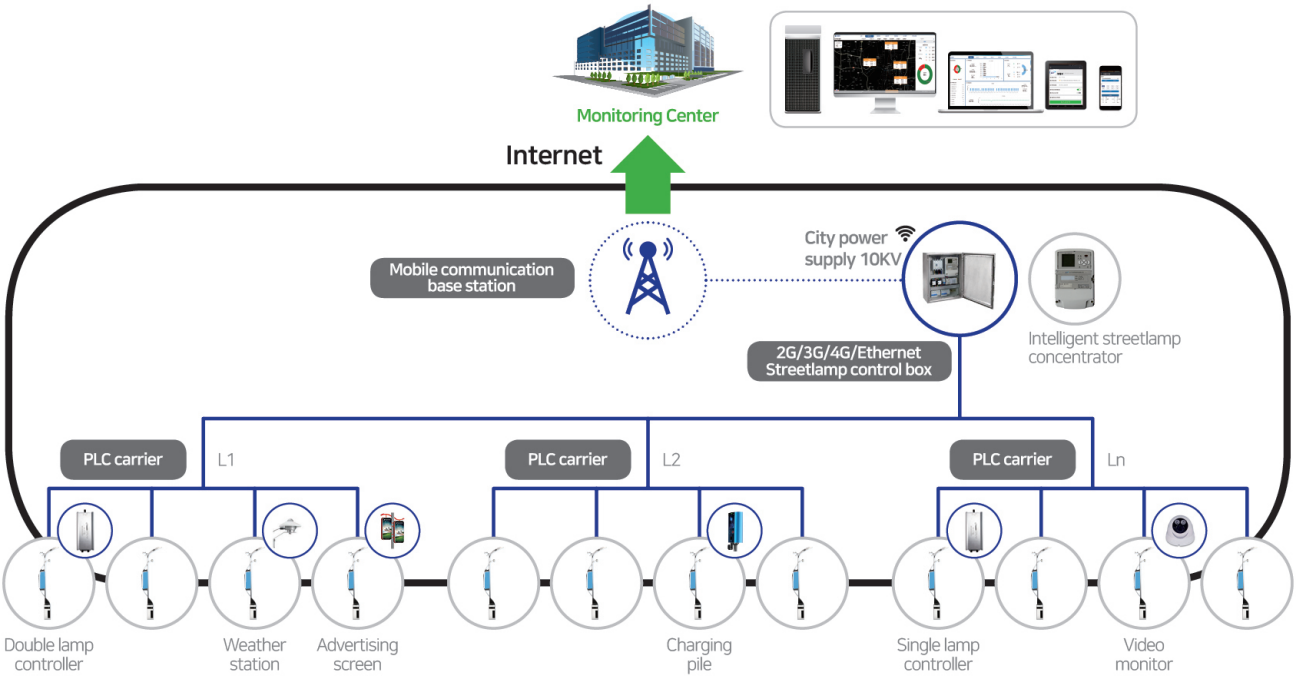
Tunnel light

Landscape light

Key features

- Stable & High Efficiency: No need any extra construction and wiring. The existing power line can be used for communication.
- Energy Consumption Analysis and Lighting Usage Management.
- Warning & Alert: Technical & Non-Technical Energy Losses (Stealing and Leakages), and Lighting Lifetime Limitation.
- Asset Management & Maintenance.
- Automatic/manual Lighting Control with Scheduling based on time period: Single Lighting control, Multi Group Lighting control, loop control, and one-key broadcasting control.
- Full Automatic Network inspection.

Service structure



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Smart Street Lighting Solution Product Introduction

Smart street light concentrator

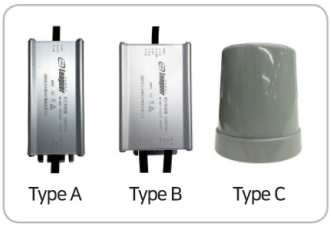
Smart street light concentrator

The concentrator has the following functions:

* Parameter.
* Data Acquisition, and storage current/ history/curve data and event logs.
* Remote light control, power measurement, and diagnosis of the light.
* Scheduling task function in accordance with the Street Light Management System.

- Manage 2040 street light nodes.
- Support to configure the schedule of standalone running (Time, Brightness)
- Support 3G/4G/Ethernet for the uplink communication connectivity to server system.
- Support both PLC(Power Line Communication) Wired and RF(Radio Frequency) Wireless communication technologies for downlink communication.

Single/Double light controller



single light controller

Double light controller

The street light controller has the built-in PLC or RF communication module to communicate with concentrator. The controller transfers the collected data to concentrator, and the concentrator sends various instructions to the controller for the operation of dimming and switching.

- Support the monitoring of Voltage, Current, Energy Consumption and measuring data to detect Fault Warning and so on.
- Product size: L103.5/W46.5/H32mm(single light type A); L146/ W63.5/H39mm(double light).

Smart Street Light Management System

The Smart Light Management System based On the cloud technology is applied to Street light, Park light, Tunnel light, Landscape light, etc. It is able to solve the poor lighting conditions of traditional street lighting systems, lack of management tools and other issues. It also provides real-time lighting monitoring, abnormal condition diagnosis, energy consumption statistics and other functions of the whole area and the whole road section to enhance the city image and energy saving economic benefits.

Intelligent monitoring

Real-time monitoring of full-network street litght operation state based on the GIS map.

Fault warning

Cable antitheft, leakage line, lamp-post inclination, and intelligent alarm of abnormal switch-on.

Automatic inspection of the light

Real-time full-network automatic inspection of each light and low-cost and high-efficient resource saving.

Lighting rate statistics

Real-time lighting rate monitoring and historical lighting rate analysis.

Environmental perception(optional)

Full-network environment temperature, humidity, illuminance, wind velocity and PM2.5 monitoring.

Wisdom adjustment

Loop/street light time and lighting control, longitude and latitude, holidays and festivals, multi-group street lights, and street light interval switch dimming lighting strategy.

Energy consumption analysis

Total energy consumption of full-network street lights, regional energy consumption, single lamp energy consumption and energy-saving analysis.

APP support

Mobile application assists installation, monitoring, debugging and overhauling fault.

Video monitoring(optional)

Integrate with the video monitoring function to know about the lighting effect on the spot.