Telematics Wireless is a recognized leader in the delivery of robust, reliable and advanced energy and water resource management systems based on RF wireless networks. Our solutions support a wide speculum of applications for many aspects of our daily life, increasing their efficiency, reliability and cost-effectiveness.

With over 15 years of proven experience, Telematics has delivered and installed a spectrum of cutting-edge wireless systems for Automatic Meter Readings (AMR), Advanced Metering Infrastructure (AMI), Energy Resource Management, including Smart Grid, Street and other lighting systems, location-based services, asset tracking and monitoring, and Electronic Toll Collection.

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Spotlighting the Benefits

For example, each luminaire can operate according to a pre-programmed schedule, e.g. 30% dimming between 01:00am and 02:00am and 50% between 02:00am and 05:00am... this dynamic dimming realizes savings in energy costs!
Switching on the benefits

**T-Light™**

The T-Light family offers Smart Lighting Control and Monitoring Systems differentiated by their coverage, features, configurations, and prices. T-Light improves services to the end-user, increases public safety, and contributes to the quality of the environment. This variety, flexibility, and modularity enable customers with a range of light control system requirements to identify solutions ranging from basic to premium.

**The T-Light Family Includes:**
- **T-Light Galaxy**
- **T-Light Pro**
- **T-Light Basic**

These systems feature various configuration choices. They also offer seamless scalability as the customer’s needs change and expand.

### T-Light Galaxy
- Recommended for controlling and monitoring of multiple luminaire clusters, each with up to 50,000 luminaires.
- Ideal for utilities, municipalities, college and university campuses, theme parks, and more.
- Uses powerful ruggedized DCU-Galaxy which is installed in outdoor sheltered installations and controls a cluster of up to 50,000 luminaires.
- Average coverage range per DCU Galaxy is 10 miles (16 kilometer) and can be extended by lamp pole repeaters.
- CMS-Pro Software with fully-featured management and control functionality.
- Communications between the DCU-Galaxy and the CMS-Pro utilizing Internet or VPL; optional - cellular Internet or cellular VPL.
- Uses an unlicensed frequency and RF mesh topology for exceptionally robust wireless communications between the LCUs and the DCUs.

### T-Light Pro
- Recommended for controlling and monitoring of wide area deployment, covered by multiple luminaire clusters, each with up to 250 luminaires.
- Ideal for towns, small campuses, business and residential complexes, large parking lots, and more.
- CMS-Pro Software with fully-featured management and control functionality.
- Uses powerful ruggedized DCU-Pro, which are installed in outdoor sheltered installations (e.g. in a cabinet controller or on a lamp pole) and controls a cluster of luminaires.
- Communications between the DCU-Pro and the CMS-Pro utilizing Internet or VPL; optional - cellular Internet or cellular VPL.
- Uses an unlicensed frequency and RF mesh topology for exceptionally robust wireless communications between the LCUs and the DCUs.

### T-Light Basic
- Recommended for a variety of properties, such as parking lots, dealerships and more.
- Controls and monitors up to 250 light poles.
- Recommended with CMS-Basic which includes several control and monitoring screens (Optional CMS-Pro, a powerful cloud-based server application).
- Controlled by DCU-Basic, a fully-featured DCU installed indoors, which connects to the organization’s internal LAN.
- Simple operation and control via internet browsers from any computer in the organization’s network.
- Uses an unlicensed frequency and RF mesh topology for exceptionally robust wireless communications between the LCUs and the DCU.

### GIS Screen
- Based on a Google map, the GIS option displays the geographic location of each light pole with its dynamic parameters.

The building blocks that enable T-Light systems to achieve significant benefits are:

- **T-Light LCU - Light Control Unit:** Controls one or multiple luminaires in a light fixture.
- **T-Light DCU - Data Control Unit:** Collects and disseminates data from the LCUs and interfaces with the T-Light CMS.
- **T-Light CMS - Control and Management System:** Provides an intuitive and user-friendly interface for management, control, monitoring, and much more.

Additional T-Light units can be added to the system:

- **T-Light Cabinet Controller:** Wireless Cabinet Control unit for monitoring and controlling devices installed in the cabinet, such as energy meter, I/O, and more.
- **T-Light Add-ons:** Wide range of optional features such as revenue grade energy meter, occupancy/motion sensor, and more. These add-ons enhance overall system capabilities.

### T-Light System Building Blocks

**T-Light LCU Configurations:**
- NEMA socket - installed on top of the luminaire
- Internal unit - installed inside the light pole or inside the luminaire’s body

**CMS-Pro Screens**
- **CMS-Pro Scheduler Screen:** Daily schedule profiler enabling pre-defined dimming levels
- **GIS Screen:** Based on a Google map, the GIS option displays the geographic location of each light pole with its dynamic parameters.

**DCU-Galaxy**
- DCU-Pro
Light the way to Smart Street Lighting Control

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- Average coverage range per DCU-Galaxy in 10 miles radius (300 sq miles) and can be extended by lamp pole repeaters.
- CMS-Pro software with fully-featured management and control functionality.
- Operates on a site-licensed frequency channel pair in 450-470MHz band as per FCC Part 90 regulations.
- Additional T-Light units can be added to the system:
  - T-Light Cabinet Controller: Wireless Cabinet Control unit for monitoring and controlling devices installed in the cabinet, such as energy meter, I/Os, and more.
  - T-Light Add-ons: Wide range of optional features such as revenue grade energy meter, occupancy/motion sensor, and more. These add-ons enhance overall system capabilities.

T-Light Pro
- Recommended for controlling and monitoring of wide area deployment, covered by multiple luminaire clusters, each with up to 250 luminaires.
- Ideal for towns, small campuses, business and residential complexes, large parking lots, and more.
- CMS-Pro Software with fully-featured management and control functionality.
- Uses powerful, ruggedized DCU-Pro, which are installed in outdoor sheltered installations e.g. in a cabinet controller or on a lamp pole and controls a cluster of luminaires.
- Communications between the DCU-Pro and the CMS-Pro utilizing Internet or VPN, optional - cellular Internet or cellular VPN.
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- Simple operation and control via internet browsers from any computer in the organization’s network.
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- No recurring communication costs.

T-Light System Building Blocks

The building blocks that enable T-Light systems to achieve significant benefits are:

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  - Controls one or multiple luminaires in a light fixture.
- T-Light DCU - Data Control Unit:
  - Collects and disseminates data from the LCUs and interfaces with the T-Light CMS.
- T-Light CMS - Control and Management System:
  - Provides an intuitive and user-friendly interface for management, control, monitoring, and much more.

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**Switching on the benefits**

**Reliable. Robust. Ready.**

**Light the way to Smart Street Lighting Control**

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- Uses a powerful ruggedized DCU-Galaxy which is installed in outdoor sheltered installations and controls a cluster of up to 50,000 luminaires.
- Average coverage range per DCU-Galaxy is 10 miles radius (15000 sq miles) and can be extended by lamp pole repeaters.
- CMS-Pro Software with fully-featured management and control functionality.
- Communicates between the DCU-Galaxy and the CMS-Pro utilizing Internet or VPL, optional by cellular Internet or cellular VPL.
- Uses an unlicensed frequency and WP mesh topology for exceptionally robust wireless communications between the LCUs and the DCUs.

**T-Light Pro**
- Recommended for controlling and monitoring of wide area deployment, covered by multiple luminaire clusters, each with up to 250 luminaires.
- Ideal for towns, small campuses, business and residential complexes, large parking lots, and more.
- CMS-Pro Software with fully-featured management and control functionality.
- Uses powerful ruggedized DCU-Pro, which are installed in outdoor sheltered installations (i.e. in a cabinet controller or in a lamp pole) and controls a cluster of luminaires.
- Communications between the DCU-Pro and the CMS-Pro utilizing Internet or VPL, optional by cellular Internet or cellular VPL.
- Uses an unlicensed frequency and WP mesh topology for exceptionally robust wireless communications between the LCUs and the DCUs.

**T-Light Basic**
- Recommended for a variety of properties, such as parking lots, dealerships and more.
- Controls and monitors up to 250 light poles.
- Recommended with CMS-Basic which includes several control and monitoring screens (Optional CMS-Pro, a powerful cloud-based server application).
- Controlled by DCU-Basic, a fully-featured DCU installed indoors, which connects to the organization’s internal LAN.
- Simple operation and control via internet browsers from any computer in the organization’s network.
- Uses an unlicensed frequency and RF mesh topology for exceptionally robust wireless communications between the LCUs and the DCU.

**T-Light LCU configurations are applicable to all T-Light families.**

**Additional T-Light units can be added to the system:**
- **T-Light Cabinet Controller:** Wireless Cabinet Control unit and monitoring and controlling devices installed in the cabinet, such as energy meter, I/O, and more.
- **T-Light Add-ons:** Wide range of optional features such as revenue grade energy meter, occupancy/detection sensor, and more. These add-ons enhance overall system capabilities.

**SIMPLE. SMART. SECURE.**

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Who
- Municipalities and utilities
- Maintenance/operating companies
- Installation companies

What
- Remotely controlled mass lighting systems

Where
- Urban streets
- Roadways
- Campuses
- Industrial complexes
- Airports
- Parking lots
- Open retail areas

Why
- More than 70% savings in energy costs when T-Light is embedded with LEDs
- Remote control of each light pole and groups of light poles
- Proactive and simpler maintenance supports real-time inventory management for reduced costs and improved performance
- Pre-programmed schedules and real-time management for routine and special conditions

How
- Web-based central management system
- Seamless integration with any LED/HID lighting fixtures
- Remote control of each light pole and groups of light poles
- Secured access and communications
- IPv6 based
- Easy-to-use, user-friendly web program
- Simple generation of reports, including parameter reports from light poles, such as aggregated power, automatic alerts about conditions and performance
- Simple, rapid deployment
- Flexible robust topologies — wireless mesh network (unlicensed frequencies) or wireless wide area star network (licensed frequencies) or Power Line Communication
- Also applicable to cabinet/wired control

For example, each luminaire can operate according to a pre-programmed schedule, e.g. 30% dimming between 01:00am and 02:00am and 30% between 02:00am and 05:00am... this dynamic dimming realizes savings in energy costs!

Who
- Municipalities and utilities
- Maintenance/operating companies
- Installation companies

Competitive Edge
- AMR track record: millions of AMR products sold since 2002
- Long-term providers of state-of-the-art LCM radio-based solutions from module-to-system level for various applications
- The world leading terrestrial location-based systems provider.
- Field-proven Smart Grid, based on cutting edge wireless solutions and Power Line Communications (PLC)
- Globally deployed T-Light mesh wireless networks

T-Light™ lights the way to the smart city.

Street and roadway lighting consume a major proportion of municipal energy expenses. In many other large public areas, lighting is also critical. Smart public lighting systems embedded with Telematics Wireless’s T-Light can deliver better than a 70% reduction in streetlight energy consumption, while lowering overall system costs by as much as 30%. Furthermore, with a single gateway directly supporting up to 50,000 luminaires, T-Light system’s deployment is exceptionally cost-effective. T-Light’s proactive and simpler maintenance features not only reduce costs; they build up consumers’ confidence in their service providers.

www.telematics-wireless.com
sales.tlight@tlmw.com

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T-Light™ - SMART LIGHTING CONTROL

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