

POWER LINE CARRIER (PLC) CONTROLS – FULL CONTROLS VIA 2-WAY COMMUNICATIONS

 **ECHELON**® *MHT Preferred Partner for an integrated Power Line Carrier controls solutions*

Managed Street Lighting Networks

Lighten Your Streetlights' Energy Load and Lower Your Costs

Many cities are upgrading their streetlight technologies to Induction and LED lights, however, between the initial investment of LED lights and controls, the paybacks are up to 3 times that of induction lights. **MHT Lighting** is the first fully controllable induction light that has full two-way communication. It's a great, green way to further lower energy costs — especially when switching from older HID technology. Adding an intelligent network to control those lights is even smarter, letting you reduce energy costs by 60 percent or more. And the extra benefits of this network — streamlined operations, lower maintenance costs, improved safety, less light pollution, and enhanced urban environments — may end up being even greater than the energy savings.

Start with the i.LON SmartServer segment controller

The SmartServer, combined with MHT electronic ballasts powered by LonWorks technology, is the cornerstone of intelligent street lighting systems around the world —and it's already the leading segment controller in the European market.



Add SMART streetlights embedded with LonWorks technology

Each MHT induction luminaire in the street lighting network includes a ballast that's been integrated with one of our power line smart transceivers. This lets it automatically detect lamp failures, dim the light in % increments, and report vital statistics such as consumed energy, lamp-burning hours, voltage, current, and ballast temperature. It also lets each luminaire act as its own energy submeter. For example, our MHT induction lights can flash in a predetermined sequence to help route emergency traffic or help emergency response personnel locate an accident scene more quickly.

Manage with Web-based host software.

Control your entire network with easy-to-use host software. These Web-based applications, provided by several manufacturers, offer a highly visual graphical environment to help city personnel manage WAN communications, track failures, check system health, automatically install new SmartServers, and collect, organize, and store data. They also extend to higher-level applications, for use with service databases, billing, notification, energy management, and other existing systems.



Benefits

- **Greatly reduce energy use.** Our smart street lighting network adapts light levels to meet real-time requirements. Dim or brighten lights according to a preset schedule or in response to weather events, like an increase in cloud cover.
- **Lower maintenance costs.** Maintenance companies can track and monitor individual lamps, and replace components based on actual performance history — often before they fail. If they do fail, automatic alarms notify the system, so there's no need for roving inspections. *The result: safer cities that cost less to operate.*
- **Install quickly and affordably.** The SmartServer's automatic discovery and commissioning feature means new devices can be bought and installed online in minutes instead of hours, and with minimal training. The host software gives you an overall view of the entire system, so you can make smart decisions, fast.
- **Future-proof your investment.** The SmartServer works with any WAN your city deploys — now and in the future — ensuring a safe, future-proof investment for your community. But that's not all. Since the SmartServer is designed to work with any LonWorks based sensor or control device, as well as other industry-standard control protocols, it offers unparalleled flexibility:
 - Add new technologies as they become available, without changing your network or retraining personnel.
 - Add new services, such as traffic and environmental sensors, flashing LEDs for emergencies, or on-demand lighting for special events — without touching your infrastructure.
 - Mix and match luminaire types — using Induction in one sector, for instance, and HID or HPS in another.
 - Add new devices to your street lighting network by simply plugging them in.
- **Provide high reliability, even in the face of urban growth.** The LonWorks approach supports urban growth, because new buildings, road construction, and other developments won't affect the power line communications technology.