



OpenWay® Riva Streetlight Solution

Intelligent Lighting Solution for Smart Utilities and Cities

A multi-purpose, networked solution is foundational to enabling smart utility and city technologies that enhance public safety; provide residents with an enhanced urban living experience; reduce maintenance and energy costs; and improve asset management. Itron's intelligent LED lighting solution provides you with a platform for more than lighting control and management by extending capabilities to monitoring things like traffic and parking, gunshot detection, air quality, weather and natural disasters—all through an open-standards, secure, multi-purpose IPv6 network. This IPv6 network is Itron's OpenWay Riva Internet of Things (IoT) solution, a field tested and proven solution that allows smart utilities and cities to capitalize on one unified, foundational network for multiple purposes across energy, water and municipal applications.

Utilities and cities are becoming more resourceful through growing connectivity of intelligent and highly efficient solutions enabled by information and communication technology (ICT) that delivers advanced operations from connected energy and smart city assets. The challenge and the opportunity is to find ways to integrate a wide range of innovations, and deploy them intelligently.

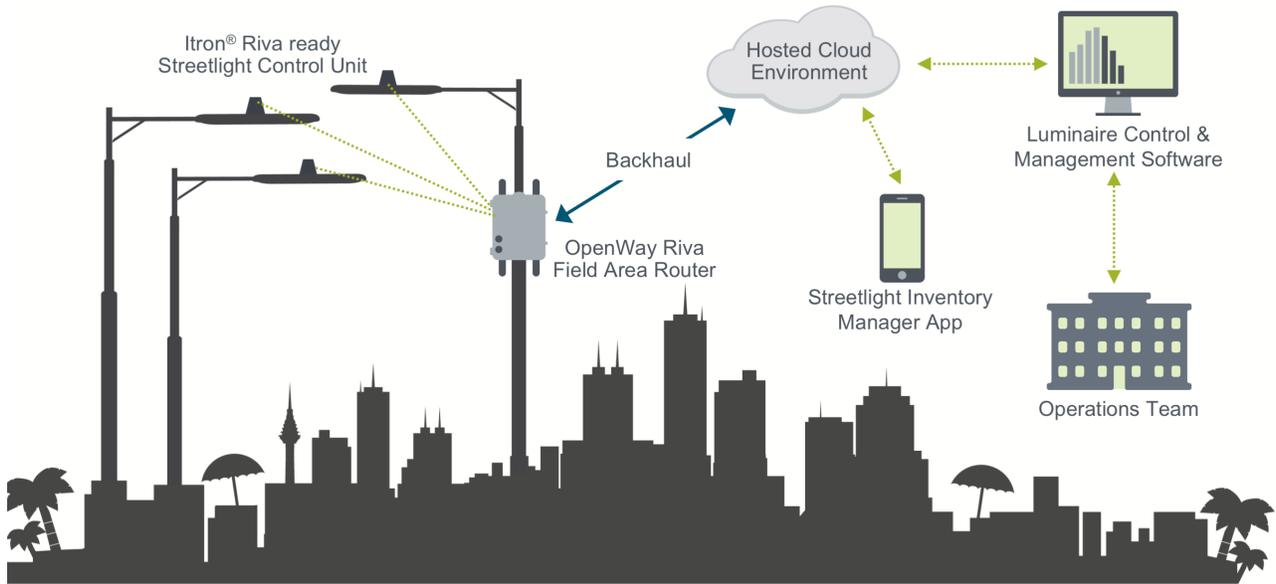
Itron has successfully deployed more than 160 million intelligent connected devices in the field for municipalities and utilities to measure and manage energy and water consumption. Our streetlight solution leverages our extensive experience in field area networking and combines best-in-

class LED lighting, monitoring and control technology and our OpenWay Riva IoT solution. Through this combination, maintenance and energy costs for street lighting can be reduced by up to 80 percent — while still improving public safety.

The secure and scalable OpenWay Riva solution expands the value of the network beyond streetlight management to also support other smart city sensors, applications and services, allowing you to introduce and capitalize on additional benefits associated with the system such as water conservation, system integrity, pipeline safety or other services.

BENEFITS

- » Autonomous, secure command and control of connected devices.
- » Advanced network management tools that provide a single, consolidated view of all edge devices and nodes to monitor network status and performance, to support proactive issue resolution.
- » Standardized, robust and proven security model so that all devices and applications running on the network are well protected using the IPv6 Internet Security Protocol (IPsec).
- » Dynamically-prioritized network traffic so that mission critical applications (such as outage detection and safety alerts) take precedence over other applications based on user-defined business rules.



A SIMPLE, RELIABLE AND PROVEN SOLUTION

Managing streetlight networks efficiently creates tangible value for utilities and cities through energy efficiency and operational savings. Itron's networked streetlight solution also enables support for battery-operated devices and applications—such as gas and water metering—on a single communications network providing for additional efficiencies.

Flexible and Secure IoT Communications Network

Jointly developed by Itron and Cisco, OpenWay Riva provides a secure, fully standards-compliant IPv6 multi-application network that connects IoT devices—such as intelligent streetlights and other sensors—through a powerful distributed computing platform, enabling endless possibilities for emerging city applications.

Efficient Lighting Technology

Luminaires equipped with LED illuminating technology and integrated communication and control modules provide low energy consumption and longer burn rates, keeping streetlight assets operating longer in the field with less maintenance and lower replacement costs. With robust 0-10V (per IEC 60929) and bi-level dimming functionality, the luminaires will use only the minimum light level required for specific situations, such as low traffic times and weather conditions.



Streetlight Control Unit

The streetlight control unit, equipped with Itron® Riva ready smart NIC technology, revolutionizes the way lighting systems are managed and controlled. Operating on the OpenWay Riva highly-secure, encrypted IPv6 wireless network, each two-way communication unit is capable of data transmission and reception, as well as complete control of the luminaire.

The control unit is built upon Itron's adaptive communications technology to deliver seamless, reliable connectivity and operation in all service environments. Control and monitoring functions are performed via a streetlight control software application.

Streetlight Management Application

Itron's streetlight control software application is a robust, intelligent software architecture that provides real-time visibility into system operating conditions and streetlight status, along with robust exception management and asset monitoring capabilities to ensure the system operates at the highest reliability and efficiency. The streetlight application can be hosted in any cloud environment, including Microsoft Azure, the largest and most secure enterprise-grade cloud infrastructure available today, and provides flexible operations, grouping and scheduling communications capabilities.



Join us in creating a more **resourceful world**.
To learn more visit **itron.com**

CORPORATE HQ

2111 North Molter Road
Liberty Lake, WA 99019 USA

Phone: 1.800.635.5461

Fax: 1.509.891.3355

While Itron strives to make the content of its marketing materials as timely and accurate as possible, Itron makes no claims, promises, or guarantees about the accuracy, completeness, or adequacy of, and expressly disclaims liability for errors and omissions in, such materials. No warranty of any kind, implied, expressed, or statutory, including but not limited to the warranties of non-infringement of third party rights, title, merchantability, and fitness for a particular purpose, is given with respect to the content of these marketing materials. © Copyright 2017 Itron. All rights reserved. 101539PO-02 09/17