

Unifying Data Streams for Smart Street Lighting Solutions



Integration of Global Outdoor Lighting Standards

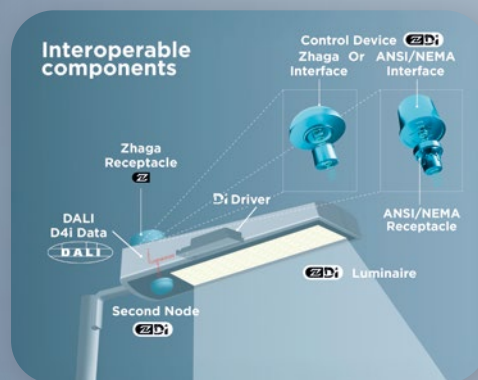
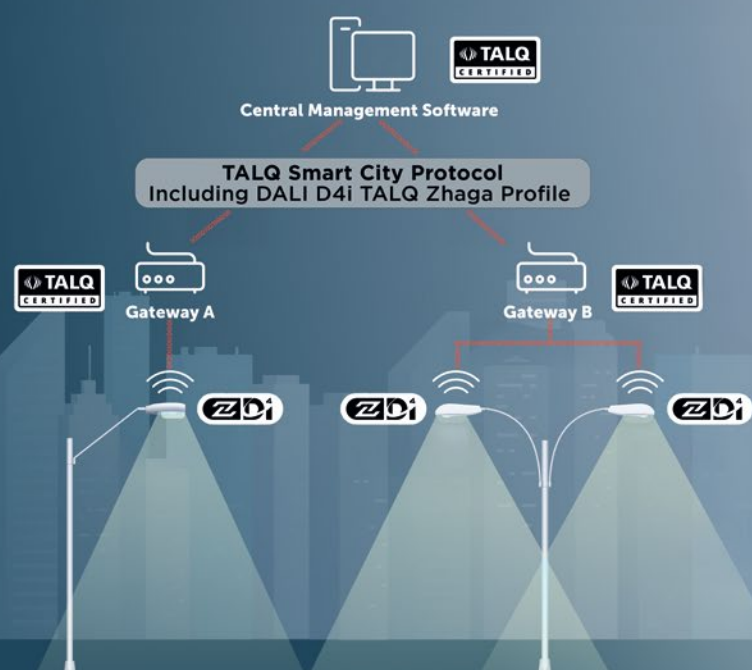
Since 2024, the DALI Alliance (DALI), the TALQ Consortium (TALQ), and the Zhaga Consortium (Zhaga) have been working together to unify data streams for smart street lighting systems. Each organization specializes in developing international lighting standards to support informed investment decisions by public and private stakeholders. Their collaboration aims to promote greater interoperability between components and improve communication across outdoor lighting networks, offering more versatile and future-proof solutions.

This intensive technical collaboration further streamlines data exchange, providing a unified approach to end-to-end communication and control in smart street lighting applications.

From 2026, the joint technical approach will enable the respective specifications of DALI, TALQ and Zhaga to reflect the data and control requirements of outdoor lighting control systems across all three industry standards.

The initiative enables smooth and loss-free communication from the individual components of a single streetlight up to the central city management platform, thanks to the standardization on attribute and profile level of the involved protocols.

A Global Collaboration Enabling Smarter Cities Through Standardization



Data-Driven Smart Outdoor Lighting – DALI D4i Data for Diagnostics, Power, and Asset Management

Benefits for Cities, Operators, and Other End Users

Investing in smart street lighting infrastructure is a long-term commitment that shapes the technological landscape of a city or community for decades. Given that these projects often rely on public funding, they require a careful, transparent, and well-informed selection process.

The collaboration between DALI, TALQ, and Zhaga plays a key role in advancing a wide range of sustainability goals. Thanks to proven international standards, customers benefit from deepest technical experience elaborated over more than a decade.



Future-Readiness

- Future-proof ecosystems
- Future-proof investments
- Supply chain longevity



Security and Resilience

- Smart asset management
- System security
- Resilient infrastructure



Operational Efficiency

- Serviceability
- Reduced operating costs
- Cost savings for maintenance



Openness and Interoperability

- Interoperable solutions
- No vendor lock-in
- Open system architecture



Sustainability Benefits

- Reduced energy consumption
- Enabling longer lifetime of lighting systems





info@dali-alliance.org
www.dali-alliance.org

The DALI Alliance (also known as the Digital Illumination Interface Alliance or DiiA) is an open, global consortium of lighting companies. DALI focuses on developing and managing digital lighting control specifications based on the IEC 62386 standard, enabling the widely recognized DALI-2, D4i, and DALI+ certification programs.

Their commitment to interoperability and certification ensures that lighting components and systems can seamlessly integrate and communicate.



talk2@talq-consortium.org
www.talq-consortium.org

TALQ is an industry consortium that has developed and introduced a globally accepted standard for outdoor lighting systems using a standardised interface protocol for heterogeneous outdoor device networks. The standard has been widened to include other smart city applications, like waste management, smart traffic, parking and environmental sensing.

The TALQ Smart City Protocol enables consistent data to be used within smart city device networks and with the central management systems of cities and communities.



info@zhagastandard.org
www.zhagastandard.org

Zhaga is a global association of lighting industry members. Well-known for its work in creating interface specifications for LED light engines and sensor and communication modules, Zhaga ensures compatibility across different manufacturers.

By enabling interoperable LED components and their certification, Zhaga has helped to foster innovation and flexibility within the LED lighting industry.