DALI Alliance issues specifications for Wireless to DALI Gateways

*Wireless to DALI® Gateways allow existing DALI wired products to be used in either Bluetooth® mesh or Zigbee® wireless ecosystems.*

Piscataway, NJ, USA – 15 April 2021: The DALI Alliance (DiiA), the global industry organization for DALI lighting control, has published specifications for Wireless to DALI Gateways that define how DALI lighting products can be incorporated into two widely-used, non-DALI wireless ecosystems, namely Bluetooth mesh and Zigbee.

The new specifications are part of the DALI Alliance’s strategy to enable both wired and wireless connectivity for DALI, providing flexibility and creative freedom for lighting designers, OEMs, and system integrators. Many factors determine whether wired or wireless (or a combination of using both) is the best option for a project, so choice is key.

Wireless to DALI Gateways provide the flexibility to incorporate DALI luminaires and other DALI devices into the control network, so it becomes very straightforward to add lighting capabilities alongside the other features of the wireless ecosystem. Existing DALI devices can
be used with these gateways, and there is already an extensive range of certified and interoperable DALI-2 and D4i products on the market. The gateway specifications enable well-defined and consistent lighting behaviour.

Another key benefit is data and analytics; the gateway specifications enable DALI control gear to report luminaire, energy and diagnostics data (as defined in Parts 251-253) to the wireless ecosystem via the gateway, including lamp failure information. The wireless network has access to data such as real-time energy and power usage, and diagnostics information including failure conditions and run-time data that can enable predictive maintenance.

“Publishing the specifications for Wireless to DALI Gateways is a major milestone that signals our intention to allow DALI to operate within wireless networks when the need arises,” said Paul Drosihn, General Manager of the DALI Alliance. “The move extends choice, convenience and creative possibilities to the user base of DALI wired systems and to those implementing new wired and wireless lighting control systems.”

“The standardized gateway between DALI lighting products and Bluetooth mesh lighting control networks will further accelerate the adoption of advanced IoT-enabled intelligent lighting systems,” said Mark Powell, Bluetooth SIG chief executive officer. “Providing valuable energy efficiencies and a more comfortable and productive experience for occupants, these sensor-rich lighting systems will also enable more efficient operation of other building systems, including HVAC and security.”

“The Zigbee to DALI Gateway brings together the market-proven, cost-effective, low-power wireless Zigbee technology, with the internationally standardized and widely used wired DALI lighting protocol, to deliver optimized and expanded wireless lighting solutions to the IoT market. When it comes to lighting-control networks, many of our members are invested across categories and applications, especially in the commercial space,” said Chris LaPré, Technology Lead, Zigbee Alliance. “As they continue to lead the market and innovate in new directions afforded by the IoT, we support broadening lighting possibilities as manufacturers drive standards that matter and deliver lighting solutions that keep the world connected.”
The two specifications published by the DALI Alliance are Part 341, covering Bluetooth Mesh to DALI Gateways, and Part 342, describing Zigbee to DALI Gateways. The specifications are available from the DALI Alliance website. The Part numbers are aligned with the global, multi-part IEC 62386 standard for DALI technology. The specifications will be transferred to IEC for incorporation into IEC 62386.

Tests are already in development, which will enable gateways to be added to the DALI-2 certification program, providing interoperability between products from different vendors.

About the DALI Alliance
The DALI Alliance (also known as the Digital Illumination Interface Alliance or DiiA) is an open, global consortium of lighting companies that drives the growth of lighting-control solutions based on internationally-standardized Digital Addressable Lighting Interface (DALI) technology. The organization operates the DALI-2 and D4i certification programs to boost levels of cross-vendor interoperability. As lighting continues to evolve and converge with the IoT, the DALI Alliance is also driving the standardization of wireless and IP-based connectivity solutions. More information: www.dali-alliance.org

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