



AN1438: Networked Lighting Control



This version of AN1438 has been deprecated with the release of Simplicity SDK Suite 2025.12.0. For the latest version, see docs.silabs.com.

Networked lighting control (NLC) systems feature an intelligent network of individually addressable and sensor-rich luminaires and control devices that allows each component of the system to send and receive data. Specifically designed to meet the scale, reliability, and security demands required in commercial settings, Bluetooth® NLC is the only full-stack standard for wireless lighting control. By offering standardization from the radio through the device layer, Bluetooth® NLC enables true multi-vendor interoperability and mass adoption of wireless lighting control.

The Basic Lightness Controller NLC Profile specifies the requirements for a networked lighting control (NLC) product acting as a luminaire controller in a Bluetooth mesh system. The Basic Lightness Controller NLC Profile standardizes the use cases and implementation patterns of luminaire controllers to help improve interoperability and performance of systems based on Bluetooth mesh, such as NLC systems.

A common use case for the Basic Lightness Controller NLC Profile is a luminaire reacting to information published by occupancy and/or ambient light sensors as well as reacting to override events (e.g., manually dimming/brightening the lights or turning them on/off) in NLC systems.

AVAILABLE PROFILES
<ul style="list-style-type: none"> • Basic Lightness Controller NLC Profile • Occupancy Sensor NLC Profile • Ambient Light Sensor NLC Profile • Dimming Control NLC Profile • Basic Scene Selector NLC Profile