Smart IoT Street Lighting
A Success Story

Improvied reliability, propagation delay, time-to-market with a custom SoC

From architect, design, validaiton, certification, to product launch , System Elite is your SoC design team for Smart IoT Solution

Custom SoC Design Services

System Elite developed a customer specific streetlighting SoC with a reliable Bluetooth/BLE & 2.4G network and a proprietary security feature.

Challenges in the
Smart Street Lighting Solutions

Installation and backend system establishment are handled by separate entities, leading to fragmented control and inconsistent monitoring. This can result in a discrepancy between the displayed status on the backend and the actual state of the streetlights. Additionally, when a street light malfunctions, the cost of repair and maintenance is exacerbated by disjointed management.
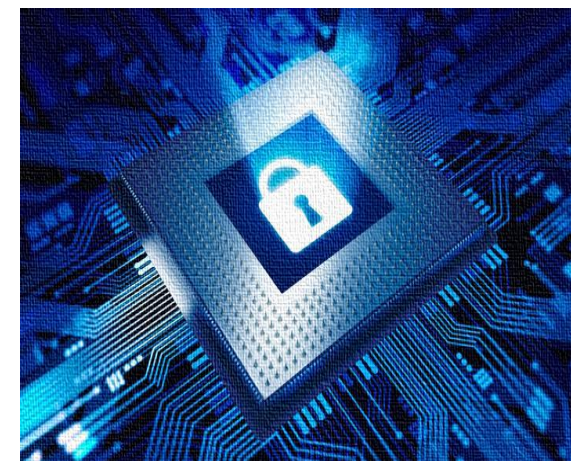
Key Features

- Long Range : Number of streelight connections increased by >50%, and up to ~2X better wireless coverage for each Node.

- High Reliability : Consistently connected wirelessly. Protected by a proprietary security system.

- Low Propagation Delay : The status of up to 50 streelight Nodes are reported in one minute.

- Easy Installation, Maintenance and Extension : Saving ~20% operation time with self-test and loopback test mode.

IoT SoC with Security

Combining Arm Cortex-M4, Secure Application, and BLE Network Processor in an SoC.

Working with System Elite

- Effectively reduced ~30% of the BOM cost of each streelight Node.

- Reduced the response time latency through proprietary commands and registers.

- Proprietary secure OTA with minimum memory usage.

- Shorter development cycle with fast time-to-market through seamless joint development starting from the early-stage engagement