IPv6 over LoRaWAN®

With Acklio SCHC
integrated on HT Micron iMCP HTLRBL32L

acklio
Unifying LPWA Networks

HT MICRON
semicondutores

Acklio innovates by bringing **Internet Protocol (IP) capabilities over LPWAN**. Acklio's software suite allows building scalable IoT solutions from interoperable standard components:

- Optimizes Internet protocols for the most constrained network environments.
- **Unifies IoT technologies** and enables **multi-technology convergence** via the Internet Protocols.
- Enables **legacy use cases** on IoT connectivities.
- Makes true additional **end-to-end security** affordable (DTLS, OSCORE).
- Improves **devices battery lifespan** and **networks capacity** by reducing volume of data exchanged.
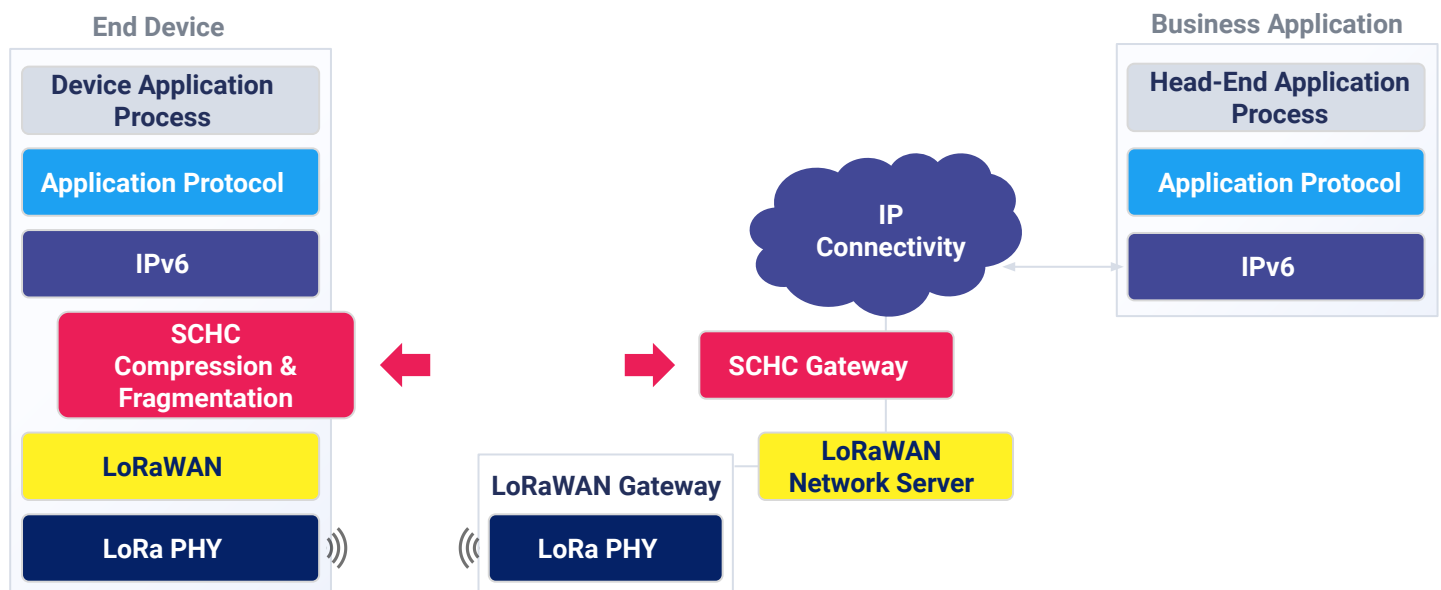
Acklio's solutions leverage the **SCHC header compression and fragmentation mechanism** standardized by the IETF (RFC 8724). The principle is to transport IP-based protocol data in IPv6/UDP packets, which are compressed and fragmented to make them transportable over the constrained radio link. The implementation requires a software component on both the device and the network side for mirror operations of compression/decompression and fragmentation/reassembly.

Protocol Adaptation

Convert wired services, or densify a network of legacy devices, with LPWAN connectivity, while keeping the original applications and communication protocols.

Network Convergence

Combine connectivity technologies and ensure a consistent device management and exposure. The LPWAN-connected devices are known and managed as IP ones.

Universal IoT Device

Develop or adapt your application to any LPWAN technology. Built on top of our SCHC SDK, it remains compatible with the different underlying connectivity.

www.ackl.io – contact@ackl.io

Acklio SCHC ready for HT Micron

HT Micron system-in-package iMCP HTLRBL32L is a highly compact and low-power wireless communication device featuring LoRa® and Bluetooth® LE 5.2 in a single device.

The **custom embedded firmware package for SCHC over HTLRBL32L** is already available.

FEATURES

- Seamless end-to-end IP-based services over LoRaWAN®

- Improved energy efficiency by reducing the volume of data exchanged

- Dynamic fragmentation according to radio conditions

- Efficient standard end-to-end encryption support: DTLS, OSCORE

- Applications layers supported: CoAP, LwM2M, DLMS, BACnet, Modbus, …

- Bluetooth® LE 5.2 supports device commissioning, mesh networking and FUOTA capability.

REFERENCE DESIGNS: HT Micron iMCP HTLRBL32L - https://github.com/htmicron/htlrbl32l

TARGET MARKETS: Smart metering, Asset tracking, Industry, Building, and Home automation.

Understand the IPv6 demo by Acklio & HT Micron
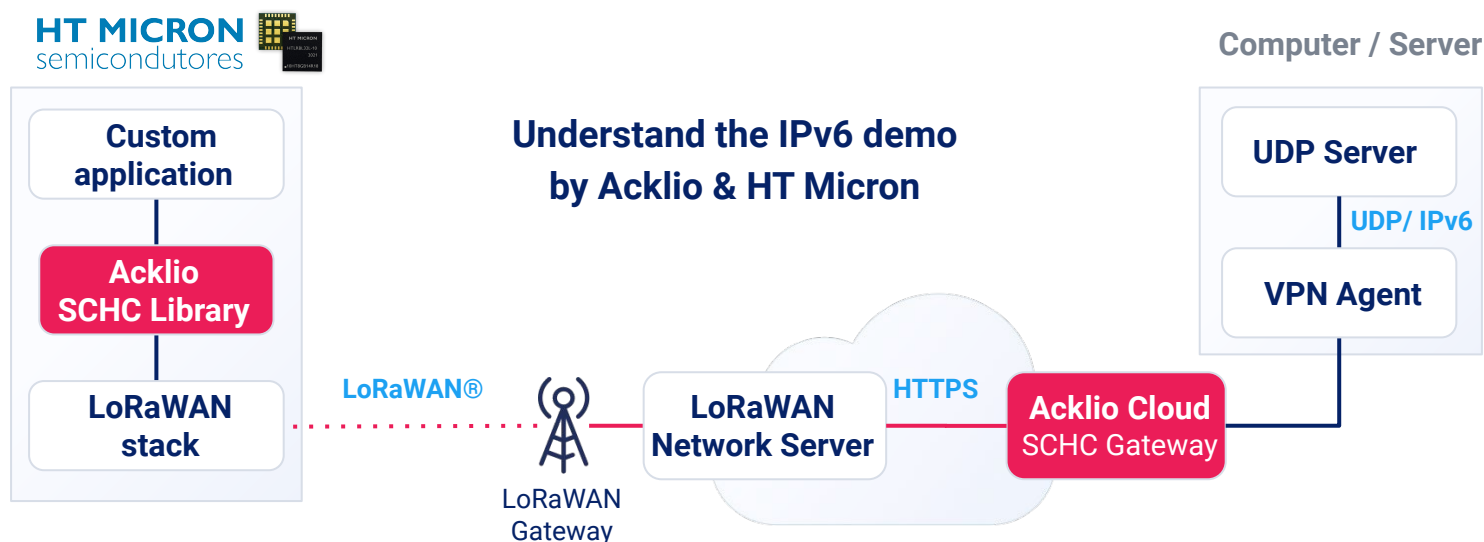
FULL COMPLIANCE WITH STANDARDS

- **IETF:** RFC 8724, 9011, 8824

- **LoRa Alliance®:** TS 010

- **DLMS UA:** Blue Book 14

TRY IT NOW FOR FREE

REGISTER: Acklio SCHC Developer Program

Includes:

Acklio SCHC library

Acklio Cloud

Demo examples

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