

## Press Release

Rennes, April 16th, 2020



# Internet of Things: an international standard is released to unify IoT networks thanks to the IP protocols

The Internet Engineering Task Force (IETF) has published a new key standard for IoT. This technology, called SCHC, allows using IP-based protocols over IoT networks. It guarantees interoperability between LoRaWAN, Sigfox, NB-IoT, and LTE-M technologies. More importantly, using this standard ensures the longevity of IoT deployments by making them extensions of the Internet. SCHC is already available to IoT players in a software suite edited by Acklio.

### **Towards 500 billion connected objects 2030, and most of them IP-compatible with SCHC!**

After 4 years of effort, the IETF, the organization behind the standardization and evolution of the Internet protocols, has published a new structuring technology for the IoT market. This new international standard, called SCHC (pronounced "chic") for Static Context Header Compression, is an advanced mechanism for fragmenting and compressing Internet stack headers. It allows constrained devices connected to Low-Power Wide-Area Networks (LPWAN) to communicate over IP.

### **Acceleration of IoT deployments and native interoperability with existing IT services**

SCHC offers a native adaptation of existing IP-based protocols to LPWAN networks. By avoiding the development of ad-hoc bespoke solutions as well as the associated testing, integration, and support, the effort to port existing business solutions to LPWAN is now estimated in days, not years.

Besides, using IP protocols makes network integration easier since they carry the messages over the entire chain. It may accelerate services development, as developers work with familiar tools. Also, the use of standard security solutions may enhance and add consistency to the security policy across the entire IT. And above all, the application becomes independent of the radio technology used.

Several initiatives now flourish to leverage the benefits of SCHC. For example in the utility market. The LoRa Alliance and the DLMS Association have worked together to specify a standardized stack for data exchange with smart meters: DLMS over LoRaWAN using SCHC as an adaptation layer.

### **Start working with SCHC today**

At the origin of the SCHC technology, there is Acklio, a spin-off from a research laboratory from IMT Atlantique in 2016. After 4 years of work with partners such as Bouygues Telecom, Cisco, EDF, Orange, Sigfox and TDF, the startup is the first player to propose an industrial implementation of the technology. It offers a software suite enabling network convergence, protocol adaptation and device portability to IoT integrators, operators, industries and device makers. An ecosystem of partners around Acklio has already begun to build expertise on SCHC and is ready to deploy solutions on a large scale starting today.

To celebrate the release of the standard, Acklio is launching a SCHC starter kit in partnership with the module manufacturer Nemeus. The kit contains the hardware and software needed to prototype SCHC-enabled devices and IoT services over LoRaWAN (see: <https://www.ackl.io/solutions/schc-starter-kit>).

**Dominique Barthel, Researcher at Orange, Orange Expert in Future Networks, co-author of SCHC Standard**

“We believe in the power of simplicity, so we worked with Acklio on a new approach that unifies and simplifies customers’ life, especially developers and network managers. The new standard, called SCHC, will allow customers to use and manage LPWANs the same way as other IP networks, by using well-known APIs and tools. Customers will also be able to select the device that best fits their requirements, regardless of the radio technology.”

**Remi Demerlé, Marketing Director for smart utilities, Semtech**

“Semtech is delighted with this success, which is part of our effort to bring this technology to LoRaWAN where the cases of application are very numerous with first the support of DLMS/COSEM protocol for smart utilities.”

**Ana Minaburo, Standardization & IP strategy at Acklio, co-author of SCHC Standard**

“The SCHC standard is a breakthrough for header compression. It takes compression one step further and addresses the drastic constraints of LPWAN networks. This RFC is a significant event for the IoT market, bringing these new generations of devices to the Internet.”

**Laurent Toutain, Professor at IMT Atlantique, Chief Scientific Officer at Acklio, co-author of SCHC Standard**

“Our vision is that the different IoT network technologies are complementary, each with their own specific strengths. With SCHC, the constrained devices will benefit from all the Internet advantages such as high interoperability and end-to-end security. SCHC lifts one of the major restrictions for a really massive IoT.”

**Juan Carlos Zuniga, Standardization & IP Strategy at Sigfox, co-author of SCHC Standard**

“We are thrilled with this latest milestone in our quest to promote interoperability of LPWAN systems, supporting common higher-layer data applications and services. It is critical that the industry rallies together to adopt open Internet Standards to unlock the true potential of IoT.”

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**About Acklio:** Acklio is a French start-up created in 2016. The co-founders are at the origin of a technology that ensures the interoperability, interconnection, and security of connected devices and emerging IoT networks. This innovation, called SCHC, is recognized as a standard by the IETF, the international Internet standards organization. As SCHC's flagship international implementation, Acklio's software suite provides robust tools to accelerate and enhance IoT deployments. [www.ackl.io](http://www.ackl.io)

**Press kit and illustrations:** <http://bit.ly/acklio-presskit>