

The Next Step in the Evolution of the Smart Object Platform



The Nivis Smart Object Platform is an IPv6-compliant solution that provides a foundation for the Internet of Things. Since its creation, the Smart Object Platform has been standards-based for cross-vendor interoperability. The Smart Object Platform was designed to provide prioritized data delivery, scalable and reliable network routing compliant with the IETF ROLL-RPL standard, PHY support for IEEE 802.15.4g compliant operation in the US, Europe and Japan as well as support for power source diversity. Now in its 3rd generation of development, the Smart Object Platform has added even more beneficial features, including additional security features and support for priority-based traffic flows and communication profiles, enabling improved security and scalability for a wider variety of applications.

Solution Highlights

- » Enhanced DTLS based end-to-end security with support for pre-shared keys (symmetric crypto), public keys (asymmetric crypto), and certificate-based authentication
- » Support for multiple levels of priority-based traffic flows (alerts, commands, periodically-published data, and general communication) enables a broad variety of applications to use the same network
- » Communication profiles enable bandwidth management based on scalability, reporting periodicity, and prioritized traffic flows to accommodate a wide variety of application requirements and performance metrics
- » PANA/EAP-based authentication supports interoperable network admission and exchange of cryptographic materials



Smart Object Platform

The third-generation Smart Object Platform is a highly scalable, application-agnostic solution built to meet industry standard protocols and incorporate state-of-the-art end-to-end security.

NEW FEATURES

WLAN communication profiles

DTLS-based Transport Layer security support for pre-shared keys (symmetric crypto), public keys (asymmetric crypto), and certificate-based authentication

PANA/EAP-based network admission and transport of cryptographic material

Support for priority-based traffic flows(alerts, commands, periodically-published data, and general communication)

Support for multicast

INHERITED FEATURES

Leverages proven standards: 802.15.4g, 802.15.4e, IPv6, RoLL/RPL, ICMP, UDP, CoAP, EXI/XML and others

Supports up to 4,000 Smart Objects

Application-agnostic

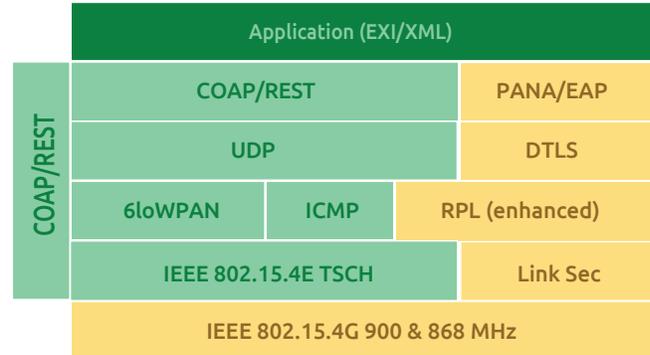
Accommodates both monitoring and control

Supports battery and line powered Smart Objects

Prioritized data delivery

Network routing based on IETF ROLL-RPL for increased reliability and reduced power consumption and cost

PHY support for 868 MHz band



The Nivis Advantage

Nivis is the world leader in building reliable wireless networks for some of the most demanding environments, from industrial automation to utility management. We offer our customers a complete, standards-based solution that is easily integrated into their products. Nivis customers are able to reduce development time and costs while adding standards-based benefits such as interoperability and broad market acceptance. Contact us today to find out how we can enable your next project to take part in the Internet of Things.