NXP Introduces New Innovative “Plug and Trust” Approach to IoT Security Using NXP A71CH Trust Anchor

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New IoT security solution for cloud onboarding, mutual device authentication, and edge node security reduces design-in complexity

NUREMBERG, Germany, Feb. 27, 2018 (GLOBE NEWSWIRE) -- **(Embedded World 2018) – February 27, 2018** – NXP Semiconductors N.V. (NASDAQ:NXPI), a leading provider of secure Internet-of-Things (IoT) embedded solutions serving customers across a broad spectrum of applications and markets, today introduced its new A71CH Secure Element (SE), a trust anchor, ready-to-use security solution for next-generation IoT devices, such as edge nodes and gateways. Designed to secure peer-to-peer or cloud connections, the chip comes with the required credentials pre-injected for autonomous cloud onboarding and peer-to-peer authentication. The solution is a Root of Trust (RoT) at the silicon level, with security functionalities such as encrypted key storage, key generation and derivation to protect private information and credentials for mutual authentication.

“Companies are now beginning to understand the importance of securing IoT devices and connections for future cloud applications and services, but they lack either the knowledge or the right security solution to integrate,” said Philippe Dubois, senior director and general manager IoT security at NXP. “The A71CH comes with all the technical collateral to accommodate a mass market need for security. It is designed to provide a Root of Trust with the needs and demands to grow and evolve the IoT market.”

New A71CH Secure Element (SE), a trust anchor, ready-to-use security solution for next-generation IoT devices, such as edge nodes and gateways.

Security-by-Design for the IoT

Unique to the chip, is its ‘Plug & Trust” approach supporting easy integration of security and cloud onboarding, e.g., through host libraries and a development kit compatible to different NXP microcontrollers (MCU and MPU) platforms such as Kinetis and i.MX. Also, example codes and various application notes are available to streamline the design process.

Thanks to the collaboration with Data I/O, a world's leading provider of security provisioning and device programming systems, customers further benefit from an easy personalization service on the A71CH for any quantities in addition to NXP’s trust provisioning service. Consequently, the new security IC gives developers, even with limited security expertise, freedom to innovate and deploy secure solutions.

The A71CH provides the following set of key features:

- Protected access to credentials
- Encrypted/authenticated interface to host processor
- Certificate-based TLS set-up (NIST P-256)
- TLS set-up using pre-shared secret (TLS-PSK)
- Connectionless message authentication (HMAC)
- ECC key generation & signature verification
- Symmetric key derivation
- Encrypted vault for product master secrets (key wrapping, derivation, locking)
- Encrypted key injection

The new A71CH supports NXP’s vision to drive intelligent and secure implementations of edge computing applications. The device builds on the company’s market-proven identification portfolio, which has already seen much success in the authentication, payment, transit and access market.

NXP at Embedded World and IoT Edge Corridor Experience

The A71CH is designed for use in the smart home and industrial applications including sensor networks, gateways, IP cameras, smart cities and home appliances. NXP will showcase its latest solutions including the A71CH for mutual authentication and cloud onboarding, connected cars, and industrial systems at Embedded World 2018 at the NXP booth, #4A-220.

A highlight of the show will be the NXP IoT Edge Compute Experience, located at the entrance of hall 4A. To RSVP your personalized visit to the IoT Edge Compute Experience or schedule a meeting during Embedded World 2018, please contact pr@nxp.com.

To hear the latest news for NXP at the show visit the NXP Embedded World 2018 press room.

About NXP Semiconductors
NXP Semiconductors N.V. (NASDAQ:NXPI) enables secure connections and infrastructure for a smarter world, advancing solutions that make lives easier, better and safer. As the world leader in secure connectivity solutions for embedded applications, NXP is driving innovation in the secure connected vehicle, end-to-end security & privacy and smart connected solutions markets. Built on more than 60 years of combined experience and expertise, the company has over 30,000 employees in more than 30 countries and posted revenue of $9.26 billion in 2017. Find out more at www.nxp.com.

For more information, please contact:

Americas	**Europe**	**Greater China / Asia**
Tate Tran	Martijn van der Linden	Esther Chang
Tel: +1 408-802-0602	Tel: +31 6 10914896	Tel: +886 2 8170 9990
Email: tate.tran@nxp.com	Email: martijn.van.der.linden@nxp.com	Email: esther.chang@nxp.com

A photo accompanying this announcement is available at http://www.globenewswire.com/NewsRoom/AttachmentNg/e5d1a45b-8d15-4c5c-b6fa-88e66c9ed8c0

NXP USA, Inc.