NXP Delivers Enhanced Security Solution to Protect Personal Data for Payment and eGovernment Services

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NXP adds PUF Anti-Cloning technology to its next generation SmartMX2 microcontroller enabling electronic identification solutions to thrive in the age of Smart Cities

EINDHOVEN, Netherlands, Sept. 29, 2016 (GLOBE NEWSWIRE) -- NXP Semiconductors N.V. (NASDAQ:NXPI) today unveiled its next generation of SmartMX2 P60 Step-Up! that offers customers unique security features such as PUF (Physical Unclonable Function) anti-cloning technology for higher encryption key protection.

Today, many Smart City initiatives seek to make urban living simpler, safer and healthier. These initiatives drive greater demand for secure technologies to protect individual and financial credentials. To address this demand, NXP's new SmartMX2 P60 Step-Up! Secure Element provides secure authentication and confidential data exchange.

To be first in market in smart cards, NXP is collaborating with MaskTech, the leading independent provider of high security smart card operating systems for electronic identification cards, travel documents and authentication solutions. Together, the companies will add PUF anti-cloning technology to secure smart cards for applications like ePassports, eID cards, driving licenses, health cards, payment cards and embedded security.

"Security and convenience for smart city solutions are of paramount importance," said Managing Director at MaskTech, Dr. Hans Hanauer. "By adding the support for the PUF feature in the new MTCOS version, MaskTech stays at the leading edge of high security smart card technology. PUF is a completely new technology for the protection of credentials. We're pleased to work with NXP, the leader in secure identification solutions, to deliver these smarter cards into the market."

"NXP has a relentless commitment to develop state-of-the art products that meet the high-end security requirements for sensitive applications like payment, e-government and access management," said Sébastien Clamagirand, Senior Director and General Manager Secure Identification at NXP. "Seeing the first roll-out of SmartMX with PUF technology is a great milestone and addresses the market need for high secure identification solutions."

SmartMX2 P60 Step-Up!

The latest SmartMX2 generation builds on the groundbreaking IntegralSecurity^{TM} architecture and includes a series of new security enhancements:

- PUF support to secure the keys against new attack scenarios via unique "silicon fingerprint" with each single circuit
- Hardware-support for dedicated cryptography in certain regions: SEED (Korea), OSSCA (China)
- End-to-end encryption, AES and DES coprocessors for high resistance to side-channel attacks
- Mature Development Tool kit SmartICE based on a true Bondout Chip with identical-to-product hardware for a safe and application-compliant implementation with full planning reliability
- Soft Masking Device for early functional prototypes based on identical-to-product hardware to reduce the development cycle time via an approved physical reference instance
- Full amount of SmartMX2 security features, including NXP-patented SecureFetch and GlueLogic for optimum relief of operation system countermeasures and safe and fast composite certifications and approvals.

The new SmartMX2 platform also received comprehensive 3rd party recognition:

- Common Criteria EAL6+ certificate (EAL 5+ with MIFARE and/or DESFire EV1 inclusion)
- EMVCo Approval
- UL Letter of Conformance for MIFARE functionality

About the SmartMX Family

SmartMX, the platform of choice for high secure and fast data transactions, is a proven solution for contact, contactless and dual interface applications with over 6 billion IC´s sold. Serving banks all over the world, from Shanghai to London and New York to Berlin, NXP's SmartMX secures transactions on over one third of the chip-based payment cards in circulation. NXP's SmartMX products are also the core component in a variety of digital identity schemes and are deployed in close to 120 out of 145 countries implementing e-government programs. Used in many sovereign electronic documents such as ePassports, citizen cards, national ID cards, driving licenses, social security cards and, health cards, SmartMX-based services protect citizens from identity theft and reduce fraud via the products' world class security features. The SmartMX family is also the preferred technology for the secure element of NFC-enabled phones.

About MTCOS

MTCOS Protects identities in more than 65 countries. MTCOS has been designed for smart card and embedded security ICs with crypto-coprocessor and contactless-, contact based- or dual interface. MTCOS is a true multiapplication OS with advanced public key support. It is compliant to all

relevant open ISO/IEC standards for smart cards and contains a unique range of eID applications already built-in the OS. MTCOS is certified Common Criteria EAL4+/5+ on different high secure semiconductor types.

About NXP
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 44,000 employees in more than 35 countries and posted revenue of $6.1 billion in 2015. Find out more at www.nxp.com.

About MaskTech
MaskTech is the leading independent manufacturer and supplier of high security smart card operating systems (MTCOS) for government and industry use. MaskTech's portfolio includes generic and customized mask solutions for state-of-the-art Common Criteria certified smart card and contactless cryptographic chipsets. The company supplies more than 30 major passport manufacturers and system integrators and holds a leading position in all of its primary product categories. Find out more at www.masktech.com.

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