NXP Launches New NTAG 424 DNA Tag Chip with Privacy Enabled, Multi-Layered Security for the IoT

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NXP Semiconductors N.V. today introduced its newest NTAG DNA tag chip that deliver privacy enabled, multi-layered security for NFC and IoT authentication applications. The NFC Forum-certified NTAG 424 DNA and NTAG 424 DNA TagTamper delivers cutting-edge security and privacy features, making it possible to confidently authenticate products and goods. These NFC chips provide cost-effective product protection and channel authentication for the fashion, food and beverages, pharmaceuticals, electrical appliances, and many other consumer and industrial goods markets – throughout the supply chain.

With the new NTAG 424 DNA brands can now effectively fight counterfeit and grey market activities at a cost level that allows mass market deployment of advanced NFC tags. By securely connecting goods to the IoT with multi-layered security including privacy protection features, brands for the first time can also combat data fraud such as IP theft, tampering and data breaches. In addition, manufacturers benefit from delivering a secured and truly personalized mobile user experience that attracts, entertains and retains customers.

"As the number of connected objects is expected to reach 40 billion by 2022, there is a growing trend of organizations seeking more secure and feature-rich connectivity solutions," said Phil Sealy, Principal Analyst at ABI Research. "Solutions such as NXP's will be critical in providing enhanced digital services and customer experiences, while securely protecting products against counterfeits, channel diversions or other types of fraud."

Secure and Trusted IoT Experience from the Tag-Edge to the Cloud
NTAG 424 DNA security features include:

- Standards-based AES-128 encryption for authentication/secure messaging, or an alternative LRP-wrapped AES protocol for even higher attack resistance.
- Secure Unique NFC (SUN) message authentication for advanced tag and data protection, useable with Android and iOS mobile devices.
- On-chip secure data storage, accessible with 3-pass mutual authentication and encrypted data transfer.
- Privacy-protected user data via Random ID and encrypted UID/data to enable compliance with latest data privacy regulations.
- Attack-resistant hardware design to avoid data breaches and cloning.
- Optional tamper protection with the NTAG 424 DNA TagTamper to securely detect if the tag seal remains intact for product integrity.

To further increase the overall system security and streamlining of end-to-end market implementations, the chips include optional value-added services for trust provisioning of chip-individual AES keys - NXP's NFC cloud authentication services that support cryptographic operations and a set of purpose-built software tools.

  "As the co-founder of NFC, NXP continues to play a pivotal role in expanding the NFC ecosystem through our legacy of technology leadership," said Alexander Rensink, business segment manager smart products at NXP. "With our new NTAG 424 DNA tag chips, we are raising the standard for trusted product authentication while enabling a new world of unique mobile user experiences for products in just about any industry vertical."

NXP at Luxepack
NXP plans to display the new NTAG 424 DNA tag chips at the Luxepack packaging show, booth #AC-9, in Monaco between Oct 1-3.