SWIPE'N TRUST

EASY CONNECT, SECURE AUTHENTICATE APPLICATION FOR INTERNET-OF-THINGS



Register and Identify equipment,

Secure Database access and connect all stake holders to object information





Android iOS 11 & 12 Windows Phone



Secure web service access



EnhanceUser Experience



By equipping unconnected objects with **Swipe'n Trust** NFC Forum Tag Type 4, opportunity to develop unique **object-to-web interactions** and improve **user experience** is at a fingertips. By adding AES cryptographic authentication Swipe'n Trust brings traditional NFC Tag to the next level.

With **Swipe'n Trust** NFC tag, companies can build services such as document authenticity verification, predictive maintenance on unpowered objects, stakeholder personalized interaction, brand protection, goods origins verification or service access credentials verification.

This Secure NFC Integrated Circuit dynamically generates a Crypto-ID: a unique authentication message added to URL each time you swipe the tag. Parameters used to calculate the Crypto-ID enables:

- Smart card authentication based on AES-128 Cryptography
- Message uniqueness verification (One-Time URL)
- Direct Chip-to-Web connection

Besides those parameters, Swipe'n Trust offers **3-pass mutual authenticate**. It notably permits to verify proof-of-presence as well as reader authenticity.

MAIN FEATURES

- > 7 bytes Unique Identifier (UID)
- Crypto-ID
 - o One time (random)
 - o Unforgeable
 - Based on AES-128 derived key
 - o Dynamically computed
- Automatic incremental transaction counter
- Data integrity (MAC)
- Cloning protection

MAIN ADVANTAGES

- Web content access exclusive to object or advertisement location
- > Create unique experience for each object
- Protect content you provide with object in limiting re-usability of URL
- Interact with each objects differently using a single web portal.
- ➤ Interact directly with user without a dedicated app or powered object
- Access directly a web service by swiping a NFC enabled smartphone



USE CASES

Predictive maintenance

Swipe'n Trust allows object and industrial equipment to be connected to its direct environment. By this way, Internet of Things (IoT) devices provider can collect statistical data, communicate on usage analytics or list operations history performed on unpowered objects.

Swipe'n Trust **ensures Database information integrity** in allowing access exclusively to people in direct interaction with object. With <u>transaction counter check</u>, a second use of the URL at distance is not possible.

For integrators wanting to restrict database update to authorized people only, Swipe'n Trust also integrates a 3-pass mutual authentication. This functionality allows to restrict tag reading or writing exclusively to authorize devices. As an example, consulting information will be

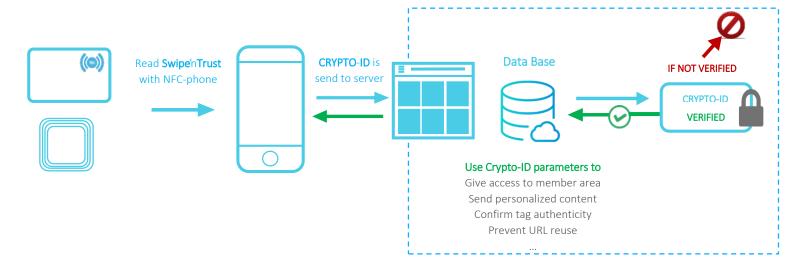
possible for every NFC devices, updating or writing information in database (e.g. repairs tasks completion) will only be approved for maintenance team close to object and equipped with verified NFC device.

Assets tracking

In assets tracking, pallet, vehicle or professional equipment traced by beacon or GPS can be coupled with a user direct interaction. After detecting position, swiping the NFC tag let user change object status, update content information or complete maintenance operation.

Swipe'n Trust allows to connect all stakeholders (producer, shipper, distributor and user) to products from raw material to final use.

FUNCTIONAL DIAGRAM



PACKAGING

WAFER
MODULE
PRELAMINATES

Sawn wafer 250 μm | 350 μm

PVC

Extended life PVC Polycarbonate

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