Near Field Communication for metering

Proven NFC technology creates new opportunities in metering

Enabling convenient, secure interaction with smart meters, NFC opens up a range of new applications from secure payment to manufacturing control and on-site maintenance.

KEY FEATURES & BENEFITS

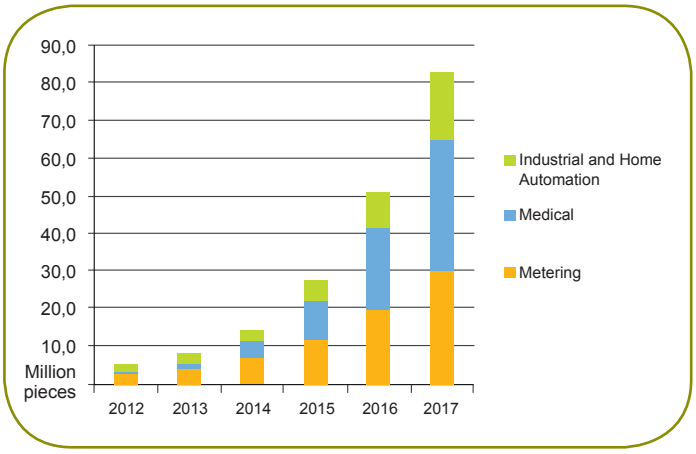
- Interoperability between NFC and MIFARE
- Widespread existing MIFARE deployment
- Contactless operation
- Convenient device management
- Maintenance and software upgrades possible
- Reduced system costs
- Increased supply chain flexibility and traceability
- Enhanced user experience through intuitive interaction

Traditionally, NFC (Near-Field Communication) has been used for conventional secure payment activities, such as mobile payment and transportation. Now, as smartphones become an increasing part of our daily lives, new use cases are also appearing in metering. In addition to a range of payment options, NFC also enables a variety of new metering applications and solutions.

The smart meter is becoming a pivotal element in the 'Internet of Things'. It links to other consumer devices like smartphones, in-home energy displays and contactless pre-paid cards, as well as myriad appliances from fridges to electric vehicles.

NFC contactless technology holds the key to optimizing metering business opportunities. It combines the ease-of-use and secure connectivity that are both essential for successful smart metering roll-outs.

NFC TOTAL AVAILABLE MARKET IN METERING



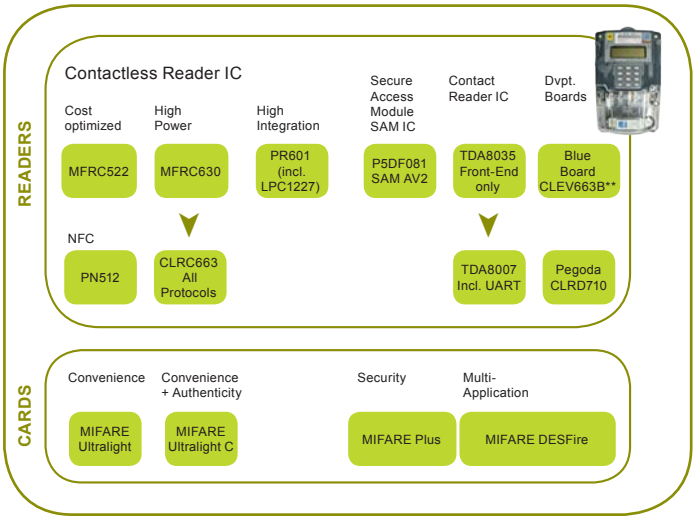
Our NFC (Near-Field Communication) technology, in particular, provides simple yet effective communication

REDUCED RISKS AND COSTS WITH CONTACTLESS PAYMENT

Existing prepayment meters working with contactless cards such as MIFARE can be conveniently upgraded to also work in parallel with NFC. In addition, bi-directional communication allows key data to be transmitted to the utility during the card's next top-up.

Meter production costs can also be reduced by replacing the meter's infrared port and display with an NFC interface, also reducing overall power consumption. The end-user can still access meter data securely, using an NFC-enabled device such as a mobile phone that also acts as the display for the meter data.

PREPAYMENT SOLUTION COMBINING NFC AND/OR MIFARE



SUPPLY CHAIN FLEXIBILITY AND CUSTOMIZED DATA ACCESS

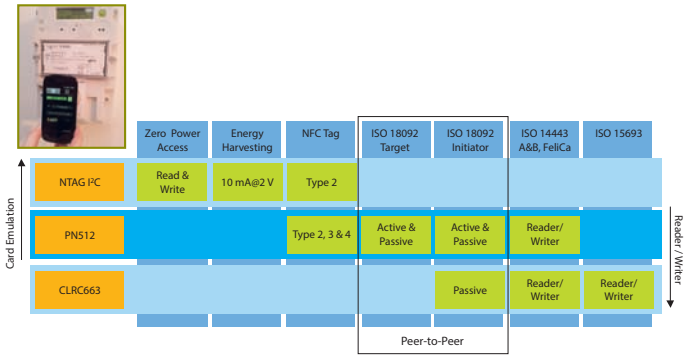
NFC makes it possible for manufacturers and utility companies to track and ensure that the right parts are being used in the manufacturing process for the meters. This can improve planning efficiency by allowing firmware to be uploaded at a very late stage in the supply chain, increasing flexibility and enabling last minute adjustments to regional or country specific requirements.

TAILORED ACCESS

Using an NFC-enabled device, customers can read the meter themselves and send the data to the utility. Or third party companies can perform the meter readings and communicate the data back to the utility and the end customer via email. The meter can even communicate directly with the NFC device for maintenance due dates and service phone numbers, sending maintenance registers or sharing usage tips.

NFC SOLUTIONS

Solutions such as our PN512 transceiver or NTAG I²C can be used in smart meters and many other industrial applications to ensure a robust link between meter and NFC device. Operating at 13.56 MHz, they are compliant with all major contactless standards (ISO / IEC 14443A / MIFARE, FeliCa and ISO / IEC 14443B) and are fully NFC forum compliant, ensuring maximum interoperability.



WHY NXP?

- Pioneer in mass-market contactless solutions
- Complete offering for NFC interfacing solution
  - from passive tags to active readers
- Invented MIFARE technology in 1994
- Co-invented NFC in 2002
- Co-founded NFC Forum in 2004
- Huge installed base
  - 150 million contactless reader ICs
  - 5 billion MIFARE cards

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