Enhancing gift card security with NXP's solutions for gift cards

The global gift card market is worth billions of dollars, bringing convenience to customers and profits to companies who use them.

However, this popular payment and loyalty solution is also a constant target for fraud. A key vulnerability lies in how numbers are stored on the card. Traditional gift cards often use barcodes, QR codes or magnetic stripes, which can be targeted for cloning, duplication and unauthorized use.

NXP's NFC chip solutions for gift cards bring enhanced security to contactless-only gift cards. This fraud-resistant solution from NXP offers robust protection to closed and open loop gift cards.

When paired with our ecosystem partners' technologies, NXP's chip solutions for gift cards eliminate static card data risks. It secures cards at both the hardware and cryptographic levels to protect against modern fraud techniques.

An extra layer of security with secure unique NFC Message (SUN)

The protective core of NXP's solutions for gift cards comes from an advanced feature called Secure Unique NFC Message (SUN). The SUN message authentication gives each gift card a unique and trusted digital identity, instantly readable by any NFC-enabled smartphone. With dynamic security features embedded in the NDEF data, every tap is protected and unclonable. Each interaction generates a uniquely secured SUN message, ensuring authenticity and integrity—safeguarding the gift card from cloning, tampering and avoiding replay attacks. Thanks to this functionality, sensitive card details can be removed from the surface and securely stored within the chip, enhancing both security and user trust.

Seamless NFC / smartphone interaction

A simple tap securely and quickly exchanges gift card data. This means users can securely activate the gift card, check its balance or redeem it without revealing any sensitive information.

No special app is needed on the NFC-enabled device to generate the unique tap data—ensuring maximum convenience for shoppers and consumers.

Secure chip solutions for every gift card ecosystem

The gift card landscape is generally divided into two categories: open loop and closed loop. Open loop cards are supported by EMV networks such as Visa or Mastercard, allowing them to be used at any merchant that accepts these payment systems.

In contrast, closed loop cards are designed for use with specific retailers and typically operate outside the EMV infrastructure. The main distinction lies in acceptance—open loop cards offer broad usability and payment functionality, while closed loop cards are retailer-specific.

NXP provides secure chip solutions for both EMV-compliant open loop and proprietary closed loop gift cards, enabling seamless, scalable, and secure transactions across all retail environments.

NXP's solutions for the gift card ecosystem

	JCOP® Pay for gift card	NTAG® 22x DNA
Gift card market segment	Open & closed loop	Closed loop
Communication protocols	EMVCo & NFC	NFC
SUN (secure authentication)	Supported	Supported
Security	EMVCo certified	Common criteria certified EAL3+
Formfactor	Contactless inlay	Contactless inlay
Card usage	Online and at all EMV enabled POS terminals	Online and in dedicated shops (integration into POS platforms required)
Contactless UX	Yes	Yes
Costs	$$	$

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