



Key Management

Value Added Services

Linxens products such as PRELAM® and White Cards that are using a derivative of NXP MIFARE Plus chip family can be enhanced by switching the chip security to a higher level.

This Security Level switch is done by writing a 128-bit AES key into a specific memory location of the chip. Additionally, it is also possible to protect specific memory blocks by programming several keys.

Products typically are shipped in Security Level 0 or 1 with pre-loaded Security Level 3 keys. This allows flexibility to switch the chip to a higher security within an existing infrastructure, and more importantly without any product replacement.

Security Level 1 (Crypto1)

According to NXP, products based on MIFARE Plus chips which are set to Security Level 1 are backwards compatible with MIFARE Classic products.

Future Proof with Security Level 3 (AES)

Products set to Security Level 3 always use AES encryption for authentication, communication confidentiality and integrity.

New features like optional Random-ID, Virtual Card and Proximity Check are additionally available in Security Level 3.

Key Features

- Keys are safely stored on Linxens internal Hardware Security Module (HSM)
- Keys: 128-bit AES keys
- Keys can be either specified by the customer or generated by Linxens
- Keys generated by Linxens are unique and only used once
- Key diversification using the Unique Chip ID (UID) is possible



RFID



Overview

Operating Frequency

- 13.56 MHz

Available IC

- NXP MIFARE Plus Family

International Standards

- ISO 14443

Application Area

- Transport
- Hospitality, Leisure & Entertainment
- Access Control (e.g. for campus cards)
- Contactless Payment
- Industry