

# PROTOS



**Multipurpose PProfessional Token  
Operating System**



## PROTOS

United Access PROTOS is a general purpose security platform to be used in various vertical markets.

Based on the Infineon SLE88CFX high performance security controller hardware family the PROTOS operating system offers typical SAM functionalities like authentication, encryption, decryption and also high secure key management functions.

- Multi purpose OS
- High performance because of hardware accelerator and 32bit architecture
- Easy extendable due to flash security controller hardware from Infineon
- Designed for hierarchical key management
- Symmetric and asymmetric cryptography on board

### What is PROTOS all about?

- PROTOS is a general purpose SAM operating system with a file system according to ISO 7816-4
- Available with T=1 protocol
- Offers DES, 3DES, AES and RSA (2048 bit) algorithm
- Designed for a hierarchical key management system with secure key download and backup mechanism

## Integration

PROTOS is available in 3 types:

- Master SAM
- Field SAM
- User Card

whereas the master SAM is intended to be part of a background system serving as key management and distribution centre while the field SAM is placed in the field for token authentication and / or other cryptographic purposes. The User Card is the secure enduser token to enforce sensible transactions by cryptographic schemes.

## Applications

- Public transport
  - Mifare DESFire
  - Mifare Plus
  - Mifare Ultralight
  - any DES or AES based token
- Toll collect
- Healthcare
- Closed payment schemes
- Large data storage
- Secure Windows logon with smart2win