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The **ZONOS™** Module FullProtect provides a Key Management System (KMS) developed for projects demanding extended security mechanisms for connecting a wide variety of IoT devices with different security requirements.

Details

The **ZONOS™** Module FullProtect delivers state of the art KMS functionality for managing cryptographic keys and certificates including support of real-time encryption and decryption of data.

A Hardware Security Module (HSM) is the core of the **ZONOS™** Module FullProtect which provides a maximum of protection for the cryptographic keys as well as hardware-accelerated cryptographic operations.

Features

- Life-cycle management for cryptographic keys
- Cryptographically secured import and export of keys
- Role-based access control to restrict the access to keys to authorised users
- Certificate management with interface to Public Key Infrastructures (PKI)
- Hardware-accelerated encryption and decryption of data streams like required by DLMS protocol
- Scalable solution based on clustering approaches
- RESTful API for easy integration

Managing Keys

The **ZONOS™** Module FullProtect is responsible for the management of the entire life-cycle of cryptographic keys. This includes secure import and export, monitoring of the key's expiration date or crypto period, key renewal, key revocation and key termination.

The **ZONOS™** Module FullProtect integrates with HSMs of different manufacturers to fulfill the highest requirements for protecting cryptographic keys.

Managing Certificates

The **ZONOS™** Module FullProtect integrates with PKIs to be able to request, renew, validate and revoke certificates.

Hardware encryption and decryption of data streams

The **ZONOS™** Module FullProtect implements hardware-accelerated encryption and decryption of data streams by utilising the capabilities of the HSMs. Beside the increased performance this also provides the highest level of protection for the cryptographic keys.

Use Cases

Secure key storage and management

ZONOS™ Module FullProtect implements secure storage of keys and secure management of certificates over the entire life-cycle for whatever application or device you are connecting to the **ZONOS™** IoT Platform.

Support of DLMS Security Suite 0, 1 and 2

ZONOS™ Module FullProtect implements full support for the high-end security solution for DLMS (Smart Metering). The module covers key and certificate management as well as encryption and decryption of DLMS data streams in hardware.

Support of German EMT initiatives (value-added services)

ZONOS™ Module FullProtect enables the secure communication to Smart Meter Gateways (SMGW) and the secure integration with the central Smart Metering PKI and the responsible Smart Meter Gateway Administrators (SMGWA).

Advantages

- Plug and play key management
- Hardware-accelerated encryption and decryption of DLMS APDUs
- Full support of cryptographic operations for DLMS Security Suite 0, 1 and 2
- Integrated certificate management