SEALSQ TRUST SOLUTIONS FOR SECURE EV CHARGING INFRASTRUCTURE

ISO15118, OCPP and NACS international standards outline secure and standardized communication protocols between Electric Vehicle and charging infrastructure:

Encryption

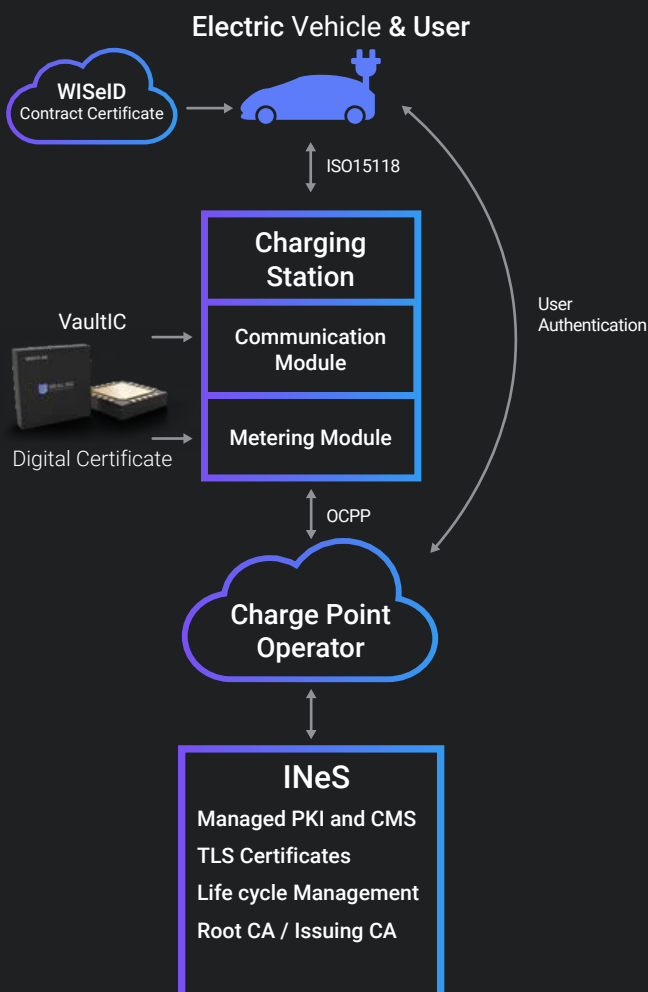**Secure Authentication**

OTA Update

Access Control

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SEALSQ Solution :

◆ Ready-to-use Secure Element personalized with a unique and universally trusted Digital Identity (ISO15118 compliance).

◆ Public Key Infrastructure (PKI) for User and Device authentication, Data encryption and Data signature (Station-to-Vehicle / Service Provider / Station-to-Station)

◆ Certificate Authorities and Vehicle-to-Grid (V2G) Root CA, Aligned with Certificate Pools and Roaming Hubs Policies

HUBJECT   CHARIN   Gireve

Electric Vehicle & User

WISeID
Contract Certificate → [vehicle]

ISO15118

Charging Station

VaultIC →

Communication Module

Digital Certificate →

Metering Module

User Authentication

OCPP

Charge Point Operator

INeS
Managed PKI and CMS
TLS Certificates
Life cycle Management
Root CA / Issuing CA

- "Plug & Charge" Charger-Vehicle authentication
- Provide Secure Identity
- Support TLS Protocol
- Protect/Encrypt Data & Assets
- Provide True Random Number for cryptographic operations SP800-90B
- Provide a Secure Platform
  ◦ Secure Boot
  ◦ Secure Firmware Update

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