|  |  |  |
| --- | --- | --- |
| automated meter reading (AMR) |  |  |
| ESME electricity smart metering equipment |  |  |
| Single element |  |  |
| Twin element |  |  |
| Polyphase |  |  |
| Single phase |  |  |
| Three phase |  |  |
| ALCSs auxiliary load control switches |  |  |
| HAN-connected auxiliary load control switches (HCALCSs). |  |  |
| GSME |  |  |
| DCC |  |  |
| DCC Messaging - 9 modes of operation |  | Messaging - 9 modes of operation   * Transform * On demand * Dcc only * Future dated - device * Future date - dsp * Scheduled - meter * Scheduled - dsp * Device alerts * Dcc alerts |
| DCC USer |  |  |
| DUIS |  |  |
| GBCS |  |  |
| GBZ (DLMS) |  |  |
| SEC |  |  |
| Metrology |  |  |
| P&C |  |  |
| HAN |  |  |
| ZigBee |  |  |
| Zse SMART ENERGY |  |  |
| Zcl cluser library |  |  |
| ota |  |  |
| X.509 |  |  |
| PKI |  |  |
| DLMS COSEM |  |  |
| PPMID |  |  |
| ZSE |  |  |
| IEEE GUID |  |  |
| UTRN Unique transaction Reference Numbers, |  |  |
| DUGIDS |  |  |
| SMIP |  |  |
| SMETS v 1 |  |  |
| SMETS v2 |  |  |
| SEC |  |  |
| SM WAN |  |  |
| CHs |  |  |
| CHTS |  |  |
| Central Switching Service (CSS) |  |  |
| Standalone Auxiliary Proportional Controller (SAPC) |  |  |
| Smart Metering Key Infrastructure (SMKI) |  |  |
| Infrastructure Key Infrastructure (IKI) |  |  |
| auxiliary proportional controller (APC) |  |  |
| standalone APC (SAPC). |  |  |
| gas proxy function (GPF |  |  |
| Prepayment Interface Devices (PPMIDs |  |  |
| In-home displays (IHDs) |  |  |
| Customer access devices (CADs) |  |  |
| nonregulated customer HAN (or C HAN). |  |  |
| Registration Data Providers (RDPs) |  |  |
| symmetric cryptography |  |  |
| asymmetric cryptography |  |  |
| Public key |  |  |
| Private key |  |  |
| Elliptic curves |  |  |
| RSA |  |  |
| message authentication code MAC |  |  |
| certificate signing requests (CSRs) |  |  |
| A Root CA: A trusted third party who can authenticate one or more Issuing CAs. |  |  |
| An Issuing CA: The party responsible for issuing certificates. |  |  |
| A Registration Authority (RA): The party responsible for receiving certificate signing requests (CSRs) from subscribers (those wishing to prove ownership of a public/private key pair) and verifying the subscriber’s identity. |  |  |
| A CA repository: A store of all the certificates that have been issued by the Issuing CA |  |  |
| Smart Metering Key Infrastructure (SMKI) |  |  |
| Data Communication Company Key Infrastructure (DCCKI) |  |  |
| Infrastructure Key Infrastructure (IKI) |  |  |
| Organisation CA (OCA) |  |  |
| Device CA (DCA) |  |  |
| CAD |  |  |
|  |  |  |
|  |  |  |
| OCPP |  |  |
| Charging Station Management System (CSMS) |  |  |
| JWS |  |  |
| MQTT |  |  |
| Web sockets |  |  |
| CoAP |  |  |
| Edge AI |  |  |
| ML |  |  |
| Low Code/ No code |  |  |
| LoRa |  |  |
| LPWAN |  |  |
| Northbound interface |  |  |
| Southbound Interface |  |  |
|  |  |  |
|  |  |  |
| Data Communications Company (DCC) |  |  |
| Data Service Provider (DSP) |  |  |
| Communication Service Providers (CSPs) |  |  |
| Trusted Service Provider (TSP) |  |  |
| Parse and Correlate (P&C) Provider |  |  |
| Registration Data Providers (RDPs) |  |  |
| The Central Switching Service (CSS) |  |  |
| Import Supplier (IS) |  |  |
| Electricity distributor (ED) |  |  |
| GT |  |  |
| Gas Supplier (GS) |  |  |
| Export Supplier (ES) |  |  |
| Feed In Tariff Scheme (FITS) |  |  |
| Electricity Distributor (ED) |  |  |
| Gas Transporter (GT) |  |  |
| Registered Supplier Agent (RSA) |  |  |
| meter operator (MOP) |  |  |
| meter asset manager (MAM) |  |  |
| meter asset provider (MAP) |  |  |
| Other User (OU) |  |  |
| The Department of Business Energy and Industrial Strategy (BEIS) |  |  |
| CESG |  |  |
| NCSC |  |  |
|  |  |  |
|  |  |  |
| CAPA |  |  |
| Wireframe |  |  |
| UI |  |  |
| UX |  |  |
|  |  |  |
| NB IoT |  |  |
| CAT M |  |  |
|  |  |  |
| Manchester coding |  |  |
|  |  |  |
| RAML |  |  |
| Terraform |  |  |
|  |  |  |

* Security should be foundation from the start
  + IoT security
  + Cloud security
  + Process
* Its hard to retrofit security
* Security by Design
* What do we do on penetration testing? Do we have a preferred partner?
  + If we do, involve from start.
* What are our principles
  + IS27002/17/18
  + IoT security foundation -IoT Security Assurance Framework
  + NISR/SAF
  + ETSI TS 303 645 V2.1
  + NCSC [Device Security Guidance - NCSC.GOV.UK](https://www.ncsc.gov.uk/collection/device-security-guidance)
  + [Code of Practice for Consumer IoT Security - GOV.UK (www.gov.uk)](https://www.gov.uk/government/publications/code-of-practice-for-consumer-iot-security)
  + [New smart devices cyber security laws one step closer - GOV.UK (www.gov.uk)](https://www.gov.uk/government/news/new-smart-devices-cyber-security-laws-one-step-closer)
    - [newbook.book (parliament.uk)](https://bills.parliament.uk/publications/46577/documents/1832)

What is ISO 27017?

ISO/IEC 27017 is an information security standard that provides additional guidance for implementing ISO 27002 information security controls within a Cloud computing environment.

It was first published in September 2015 as ISO/IEC 27017:2015.

iot security foundation -IoT Security Assurance Framework Release 3.0, November 2021

SMDA Smart Meter Device Assurance

CPA Commercial Product Assurance