

# LANDIS+GYR CONVERGE

## END-TO-END METERING SOLUTION

Converge is an end-to-end software solution for industrial, commercial and grid applications. It covers the whole chain from data acquisition through meter data management, all the way to a flexible interfacing to 3rd party systems. Scalability and modularity of the application allow to serve customers of varying sizes and to meet their requirements.

### Key benefits

- Automatic and manual data collection from ICG meters
- Communication technology flexible solution with backup line support
- Modern and user-friendly UI with support of the latest web browsers
- Up to date in cybersecurity thanks to continuous development
- Extensive meter support with over 150 meter types from more than 40 vendors
- High scalability from low hundreds to up to a million of metering points
- Reliable Oracle database allowing for high availability solutions
- Strong references from more than 100 installations worldwide

#### System Integration

Billing SW, Forecasting Applications, SAP, PI, SCADA, Web Portals

#### Converge

Meter Data Acquisition, Calculation, Validation, Processing, Reporting, and Export

#### Communication

TCP/IP, GPRS, GSM, PSTN, and more

#### Smart Metering

Electricity, Gas, Heat/Cold, Water

### Data Acquisition Features

- Automatic and manual meter data collection
- Load profiles, billing values, daily profiles, meter events and statuses
- Time operations with synchronization
- Daylight savings time handling
- Communication monitoring, statistics, and backup communication line support
- Meter data visualization (table, chart)
- Acquisition error handling and task rescheduling
- Smart functionalities (breaker and relay control, load limiters, TOU tables)
- More than 150 different meter types supported

### Data Processing Features

- Business-oriented consumer tree for data segmentation
- Validation, estimation and editing (VEE) process
- Data calculation and aggregation
- Tariff management including holiday and special day handling
- Advanced reporting capabilities (dashboards, built-in reporting engine, custom reports)
- Flexible and innovative interfacing options to 3rd party system via API (Billing SW, SAP, Web Portals)
- Meter data archiving and storage

## Administration Features

- Protected user access
- Active Directory integration
- Data segmentation
- Meter data archiving
- Advanced logging and auditing
- Alarm and event processing

## Utilized Technologies

- Deployment (Kubernetes, Docker)
- Virtualization (VMware, Hyper-V)
- Monitoring (ELK Stack)

Oracle Exadata compliant / ready

## System Scalability

- Converge for smaller customers (up to 500 metering points)
- Converge (up to a million metering points)
  - High Availability
  - Disaster Recovery

## Hardware System Requirements

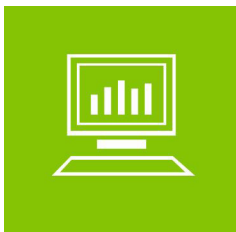
Converge is highly scalable and can support small to large installations. A detailed description of hardware requirements can be provided based on individual request.

## Software System Requirements

- Operating system
  - Windows Server 2019, 2016
  - Linux Red Hat Enterprise, Ubuntu, CentOS
- Database
  - Oracle 19c, 18c, 18XE, 12c (12.2)
- Web browser
  - Microsoft Edge\*
  - Google Chrome
  - Mozilla Firefox
  - Apple Safari

\*both Chromium (86+) and Microsoft (09/2019+) based versions

## System Deployment Options



**All-in-one System**

The smallest deployment scenario. A single machine is used to operate both Converge and the database.



**Single Server System**

The medium scale deployment scenario. Converge runs on separate application server from the database, which hosts its own dedicated server.



**Distributed System**

The distributed deployment is the largest scenario. There may be an x number of application servers used for different Converge components such as data acquisition, data validation, and data processing. The database may also be hosted in numerous servers.