

Advanced MicroGrid Optimization

AMIGO Industrial

Designed to solve a number of problems industries are facing in terms of energy management: excessive energy costs, production losses, excessive technological equipment maintenance and repair costs.

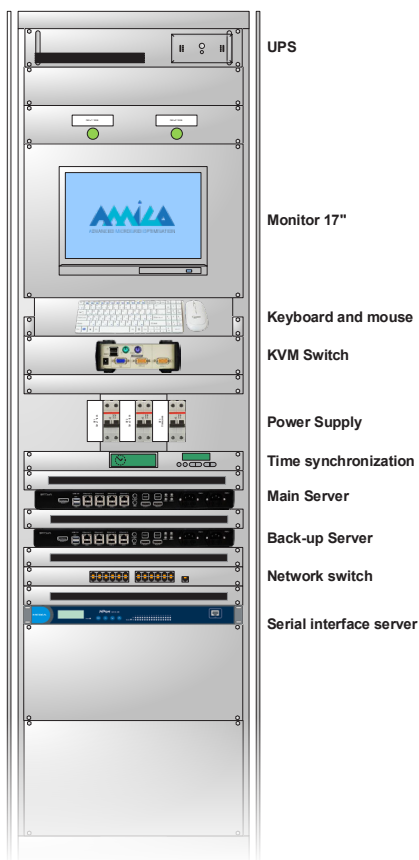
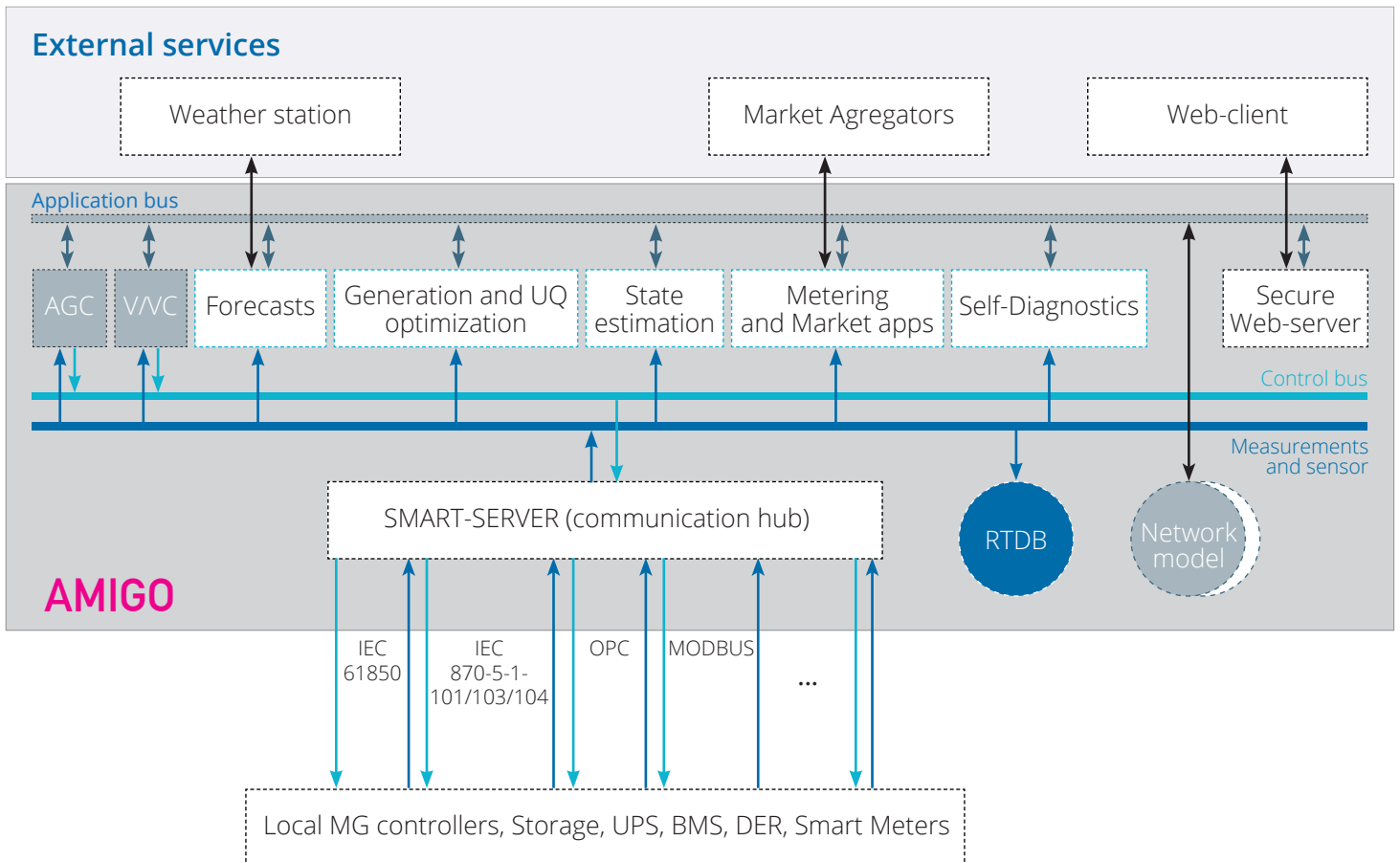
Optimized control of industrial power system

AMIGO I provides coordinated management of local generation units, electricity storage devices, factory transformer substation voltage levels and controllable loads in both automatic and semi-automatic modes (decision support mode). AMIGO I architecture is shown in the picture below.

Based on forecasts of electricity consumption and renewable generation AMIGO I follows the innovative three-layer load optimization:

- Long-term (up to one year), leveling the average load on energy sources and taking into account the maintenance and repair schedules;
- Short-term (day ahead), providing the optimal selection between external energy supply, local generation sources and developing the strategy of electricity storage charging/discharging for forecasted load and weather conditions (received from meteorological services);
- Operational (1 minute ahead), looking for optimal distribution of load between existing sources of energy.

Optimization and control algorithms of AMIGO I operate with power system information model compatible with IEC Common information model standards.



AMIGO I functionality

- Preparation and implementation of the most profitable profile of energy purchasing/selling for the planned period of time;
- Additional earnings from Demand Response/Load Management;
- Decrease of enterprise energy consumption by input voltage stabilization on the minimum allowed levels;
- Maintenance of acceptable levels of grid parameters and power quality for reliable and uninterruptible electric supply;
- Voltage and frequency control in the enterprise internal grid in autonomous mode of operation;
- Balancing of expenses for electricity, heat and freeze locally produced or purchased;
- Market interaction and optimal pricing for energy purchasing on wholesale or retail energy markets.

www.rtsoft.de

RTSoft GmbH

Gutenbergstr. 2, 85737 Ismaning
 Tel.: +49 89 370 058 400
info@rtsoft.de
www.rtsoft.de

