

| Destination:

Enernet is an integrated, active management system for energy management of telecom operators. It allows to perform self-audit of energy consumption by monitoring with accuracy to single operating device, data analysis and identification of incorrectness, preparing reports and recommendations.

| Application:

Energy management in areas such as:

- + telecommunications;
- + energetics;
- + industry.

| Main functions:

- + control of electricity consumption by the site, or group of sites;
- + remote reading of energy consumption by using energy meters;
- + forecasting of energy costs in a given period of time;
- + Analysis and comparison of energy consumption in selected time periods.

| Description:

Enernet is an integrated information management system for energy management (EMS - Energy Management System). It works with other systems such as monitoring, maintenance. It implements the SOA (Service Oriented Architecture) concept. Enernet is dedicated to cooperation with WinCN 2 – Remote Supervisory System offered by Telzas.

Part of Enernet system is PI1 supervisory controller in the form of specialized hardware and software modules. Enernet controller may be delivered as stand-alone product or as an extension of the Telzas power supply systems functionality.

As part of comprehensive Enernet service we also provide consulting services (recommendations) at the design and exploitation stages.

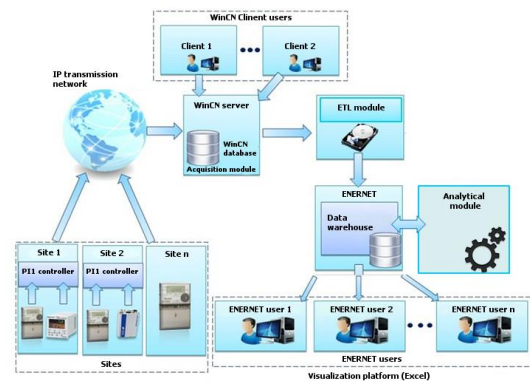
| Registration data:

The system allows to measure and record of the following energetic parameters:

- + energy consumption by the power supply system;
- + energy consumption by the site;
- + energy consumption by the 4 selected DC loads;
- + output voltage of the power system;
- + output current of the power system;
- + load current;
- + load voltage;
- + battery current;
- + rectifiers current.

| System Architecture:

Enernet is based on Data Warehouse technology. Data for the analysis are provided by the WinCN 2 monitoring system. Information are presented by the OLAP cube.



Enernet consists of the following elements:

- + supervisory controllers - installed on sites, connected with measuring interfaces (electricity meters),
- + WinCN 2 Server - data aggregation module,
- + ETL - module for synchronization and mapping of energy data from the WinCN 2 database to Enernet data warehouse,
- + Enernet data warehouse - database of sites energy parameters,
- + analytical module - processing and analysis of energy parameters,
- + Visualization platform - data visualization module for end user in the form of data reports in EXCEL.

| Reports and recommendations:

Information aggregated in the system can be used to generate reports and forecasts, for example:

- + Analysis of the current energy consumption of sites and selected items,
- + Budget forecasting in relation to information about the energy consumption of sites,
- + Forecasting energy consumption depending on the number and type of sites
- + Simulate the impact of changing energy parameters at the expense of energy consumption,
- + Simulate energy costs, depending on the selected tariff.

| The goals of system implementation:

- + Current information about the value and cost of energy consumption by sites;
- + Current monitoring of value and cost of energy consumption;
- + Forecasting of the budget in relation to information about the energy consumption;
- + Forecasting of energy consumption depending on the number and type of objects;
- + Simulating the impact of energy parameters changes at the expense of energy consumption;
- + Simulating energy costs, depending on the selected tariff;
- + Simulating the impact of use energy reduction solutions to reduce costs.



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