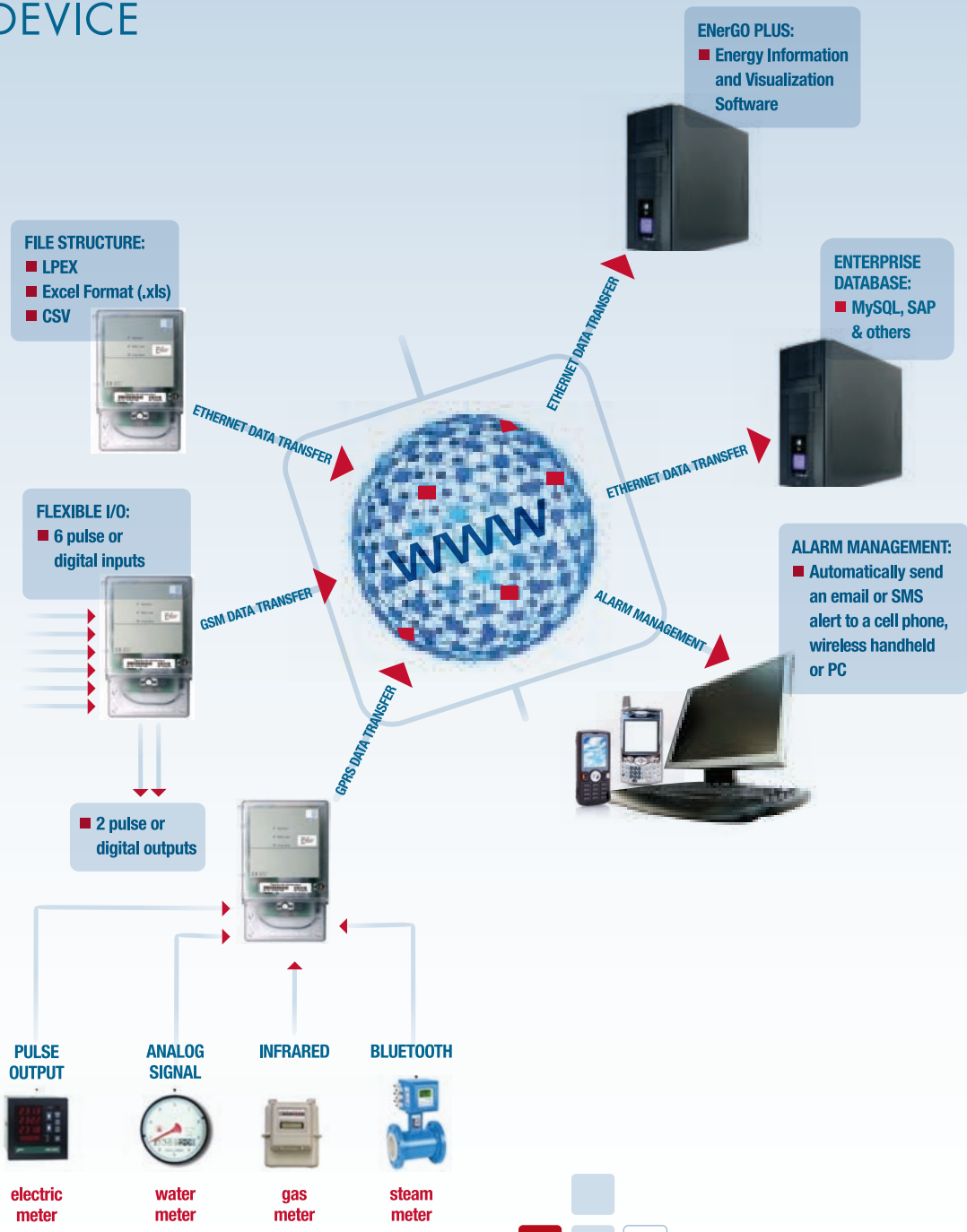


Multifaceted Platform for Energy Information

Skaiar SMART METERING DEVICE

**REVOLUTIONARY
FUNCTIONAL
REDUCED COSTS
ADAPTABLE
FLEXIBLE
REAL TIME**

- ▶ Minimize Infrastructure by utilizing your existing IT network architecture
- ▶ Lowest engineering cost vs. other products up to 50% less
- ▶ Superior Functionality:
 - 6 pulse inputs (water, gas, electric, steam, other)
 - 2 pulse or digital outputs
 - Serial protocols (RS-232 and RS-485)
 - Alarms – email and SMS alerts
 - Ethernet, ISDN, GSM, GPRS, and Bluetooth
 - Up to 250 days of data retention
 - Web-based or local data access
 - Custom programming capabilities
- ▶ Real-time Multitasking Metering System for Facility Data Collection (RTOS)
- ▶ Highly Flexible and Adaptable
- ▶ Highly Cost Effective and Economical



FILE STRUCTURE:

- LPEX
- Excel Format (.xls)
- GSV

FLEXIBLE I/O:

- 6 pulse or digital inputs

■ 2 pulse or digital outputs

- PULSE OUTPUT
electric meter
- ANALOG SIGNAL
water meter
- INFRARED
gas meter
- BLUETOOTH
steam meter

ENerGO PLUS:

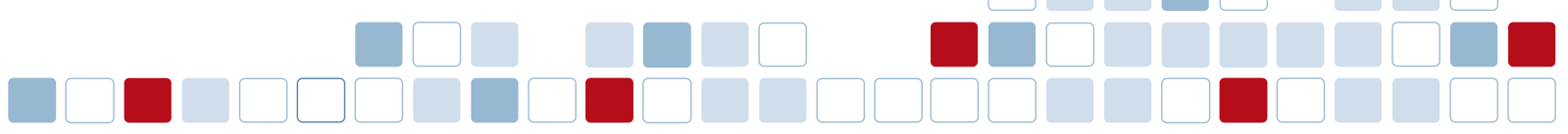
- Energy Information and Visualization Software

ENTERPRISE DATABASE:

- MySQL, SAP & others

ALARM MANAGEMENT:

- Automatically send an email or SMS alert to a cell phone, wireless handheld or PC





Skalar Devices

Skalar – A multi-talent

Scalable, quick and individual. These are the attributes of the new generation of devices.

Skalar is a communication computer, equipped with state of the art IP technology and loadable software modules. It enables data transmissions to any destination system. Regardless of the appearance of your application, Skalar offers new prospects in energy data communication and accelerates your business process.

As a result of the liberalisation of the energy markets, new tasks are assigned to the various participants, namely the network operators, traders, suppliers and customers. To focus on the respective needs, a variety of technical options are required at the measuring point. In addition to the technological aspects of the communication, the format and the further usage of the data displayed play a major role. Consequently a task for Skalar. Due to its novel device concept, metered values can be collected, standardised and transferred to different recipients.

A high-capacity 32 bit microprocessor with 1 Mbyte RAM and 2 Mbyte Flash memory and a real time multi-task operating system (RTOS) are the core of Skalar. The operating system and the software applications can be loaded in the device at any time. Single tasks are brought to execution by means of the scheduler and when you wish them to be carried out.

Communication with one or more remote stations ensues optionally over GSM / GPRS, PSTN, ISDN or Ethernet. The IP based data transmission takes place for instance via the standard application FTP server, FTP client or as email client. Not only user data is transmitted, but new

software modules can also be uploaded and configured and even the entire operating system can be exchanged. Skalar thrives with your demands and presents a high investment security. An internal user administration with passwords and authorisation levels provides the necessary access protection. A safe data transmission is possible even during use in an Internet environment with a Virtual Private Network (VPN).

A transparent intelligent data modem with IEC 1107 protocol support is implemented as the first application in the base device. The connection is established to the integrated optional interfaces CL1, RS232, RS485 or Mbus.

Skalar is update-compatible at any time and supports numerous software modules. The administration and initial operation of the device takes place via a parametric cable and the programme SkalarBuilder.