Instrument Data Management Software

- Instrument data collection
- Instrument management
- Energy monitoring
- Data reporting
- Data analysis

Energy sector

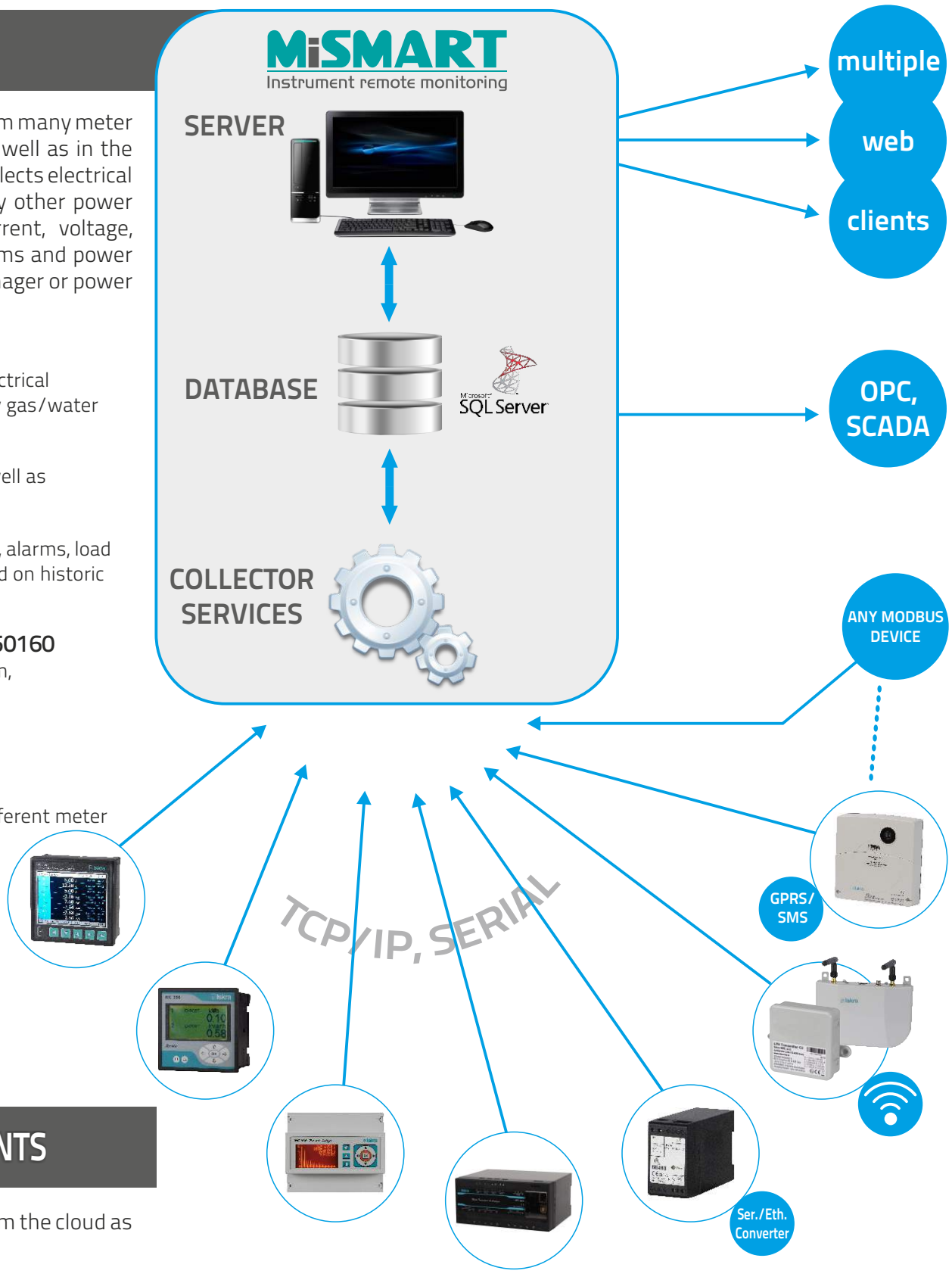
Iskra®

Data Managemen

MAIN FEATURES OF MISMART

The **MiSMART** server centrally collects instrument data from many meter points. It is primarily targeted for use in the industry as well as in the energy distribution and production sectors. The system collects electrical energy, gas or water consumption data, as well as many other power quality (PQ) related electrical parameters (power, current, voltage, frequency, power factor,...) The system also includes alarms and power quality data which are quickly available to any energy manager or power quality operator and enable:

- **Measurement monitoring** providing the means for electrical parameter monitoring aswell as control over electric energy gas/water consumption and losses within the company,
- **Alarm monitoring** enabling more reliable operation as well as equipment maintenance,
- **Statistical functions** (histogram, percentile, peak power, alarms, load symmetry) for better equipment investment planning based on historic consumption and PQ data,
- **PQ event analysis and reporting according to EN50160** aimed at improving electrical power quality on the long term,
- **Table or chart** data displaying,
- **Excel and PQDIF** data exporting,
- **Network data filtering and comparing** data from different meter points,
- **Supports OPC, SCADA** standard protocols (IEC 60870-5-101/104), **MODBUS/TCP** direct poll.



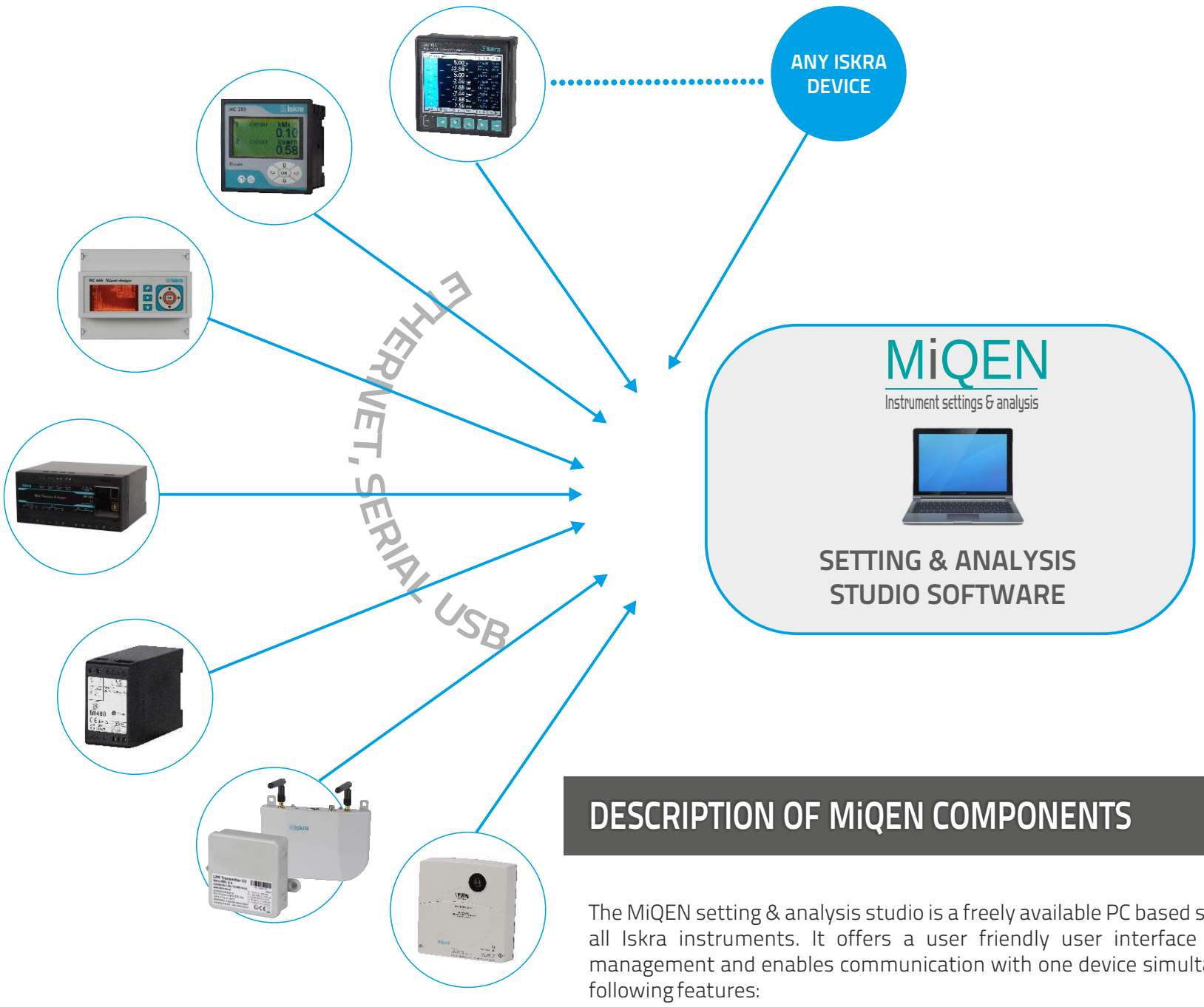
DESCRIPTION OF MiSMART COMPONENTS

The **MiSMART** server can be installed locally or available from the cloud as a service and consists of the following components:

- **MiSMART collector services**: reliably collects data from remote instruments supporting the following ways of communication:
  - proprietary XML push package receiver,
  - MODBUS/TCP poll collector for direct device access (also 3rd party device)
  - SMS receiver.
- **SQL Database**: stores all collected data in a MS SQL database,
- **Clients using a web based application:** enables multiple users with different user credentials and data access to access the system according to their role in the company. The application consists of 2 parts:
  - Configuration Tool for administrators (Instrument data management System grid structure, user Management, access control)
  - Data Monitor for data overview and analysis (data monitoring, Statistics, PQ analysis,Table or chart data displaying, data exporting data filtering, Comparing data from different meter points...)

MiSMART
Instrument remote monitoring

t Software Features



DESCRIPTION OF MiQEN COMPONENTS

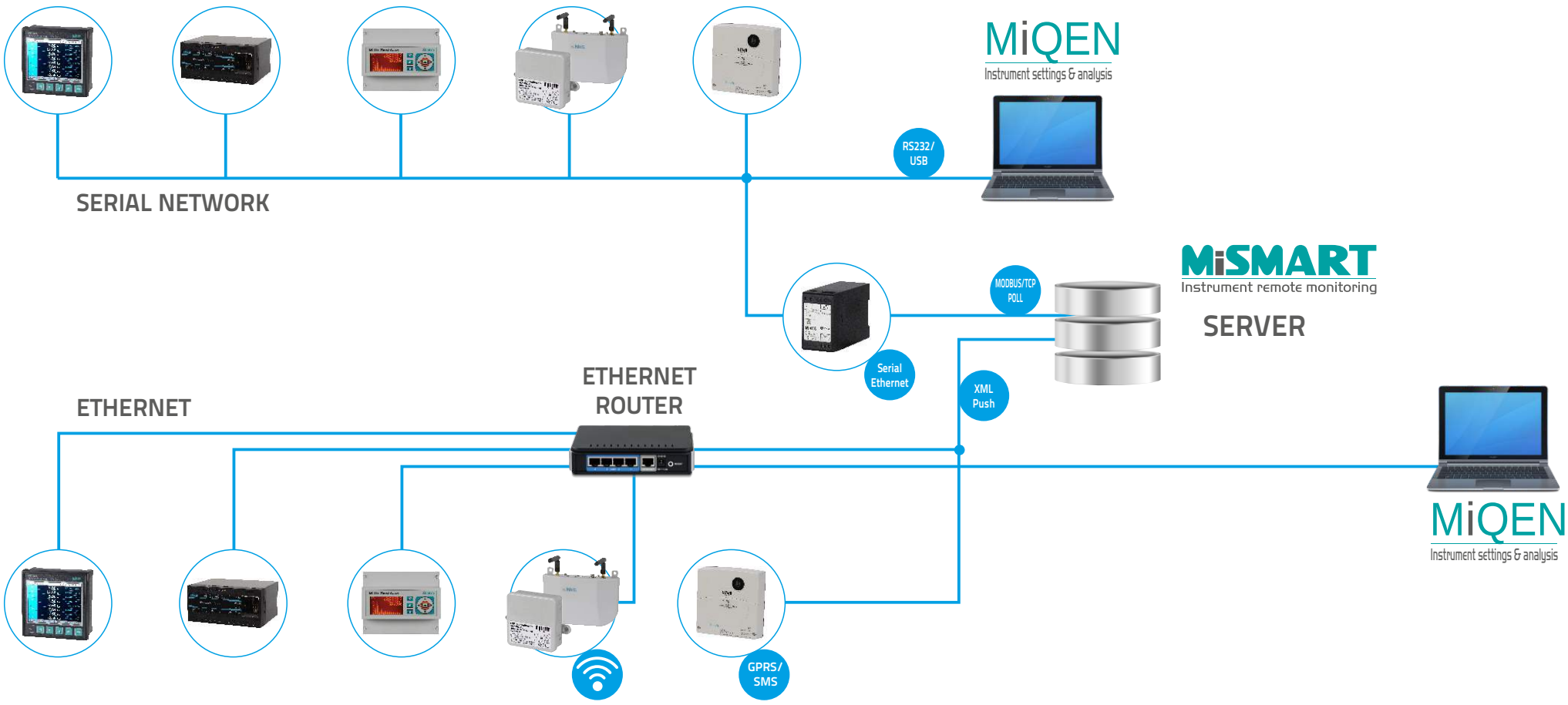
The MiQEN setting & analysis studio is a freely available PC based software which supports all Iskra instruments. It offers a user friendly user interface for simple instrument management and enables communication with one device simultaneously. It enables the following features:

- **Setting-up instruments** with suitable settings for a particular application,
- **Observing online Measurements** directly via direct instrument MODBUS communication in graphical and table form,
- **Instrument Data Analysis** based on memory readings (measurements, alarms, waveforms, transients, PQ reports, PQ events)
- **Upgrading devices** – the system alerts the users about the latest instrument firmwares and offers them for for download and upgrade,
- **Interactive instrument** enabling remote direct instrument manipulation through device user interface,
- **My devices** where every already accessed instrument can be stored for later quick access within a grid-like structure,
- **Browse devices** for reviewing a list of all instruments which are currently available.

MiQEN
Instrument settings & analysis

Typical Software Usage

A typical application of the Iskra instrument data management software is shown in the figure below. The software can be used for applications with just one or a few instruments as well as for widespread applications with several hundreds of instruments where the software is a vital monitoring central block.



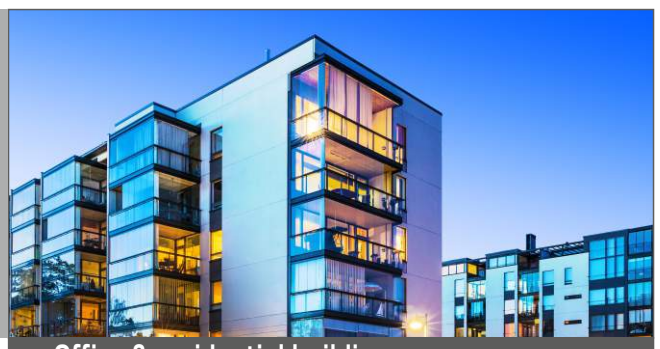
TYPICAL CUSTOMERS

Electrical distributions

- LV transformer stations
- PV power plants

Industry

- Paper factory
- Chemical



Office & residential buildings

- Public
- Residential buildings
- IT centres

Published by Iskra, d.d. ▪ Version 1.0, 07/2015

Iskra®

Iskra, d.d.
Stegne 21
SI-1000 Ljubljana, Slovenia

Phone: +386 (0) 1 51 31 000
Fax: +386 (0) 1 51 11 532
www.iskra.eu