



ivpower

power quality monitoring and automatic **fault analysis**



a software dedicated to power distribution systems monitoring

Power distribution grids are at present equipped with devices with continuously increasing communication capabilities and increasing functional integration. The avalanche of information resulting from an incident occurring on a grid is often difficult to comprehend. However checking power quality and analyzing disturbances are now more essential than ever for a distribution system operator.

IVPower is the solution for integrating all the data coming from sub-stations for archiving, analyzing and publishing by:

- Collecting and gathering **disturbance recordings** and **event logs**
- Performing automatic **fault analysis**
- Monitoring **critical assets**
- Detecting **voltage dips** and **overvoltages** in compliance with IEC 61000-4-30
- Collecting and archiving **voltage quality** parameters
- Generating **EN50160 compliance reports**
- Calculating **quality margins**

IVPower is designed for a large number of users:

- To reply to their customers, **measurement and quality specialists** can check that the voltage complies with standards in force. They automatically receive a summary of weekly EN50160 compliance reports and are notified of any voltage dip or any failure to meet standards.
- **Persons in charge of studying new connections** use the application for calculating quality margins at given points on the grid.
- Should any incident occur on the grid, **operating managers** receive fault location data in just a few minutes. Then, **protection specialists** check fault elimination sequences, the behavior of protection devices and the state of circuit breakers in correlation with the recorded currents.
- **Assets managers** can consult statistics on faulty lines, tripping by protection devices, circuit breakers opening and the state of transformers.

disturbance recordings

Voltage dips

Continuous measurements

Event logs

Collecting
Incorporating

Analyzing
Generating reports

Notifications
Export to external systems



This solution is available as installable software or as a secured service accessible on the Internet.

The SaaS (Software as a Service) offer includes a range of subscriptions that enable the different functionalities and the desired number of fixed or mobile measurement points.

Assistance throughout all the different project stages

NetCeler offers:

- advice on how to use existing devices as well as possible for optimizing the **coverage ratio** of every function proposed,
- engineering, installation, qualification and maintenance services,
- assistance in **device data integration projects** by proposing SMGs (Substation Monitoring Gateways) capable of supporting the main communication protocols in substations, such as IEC 61850 and IEC 60870-5-103.

Technical datasheet

IT integration

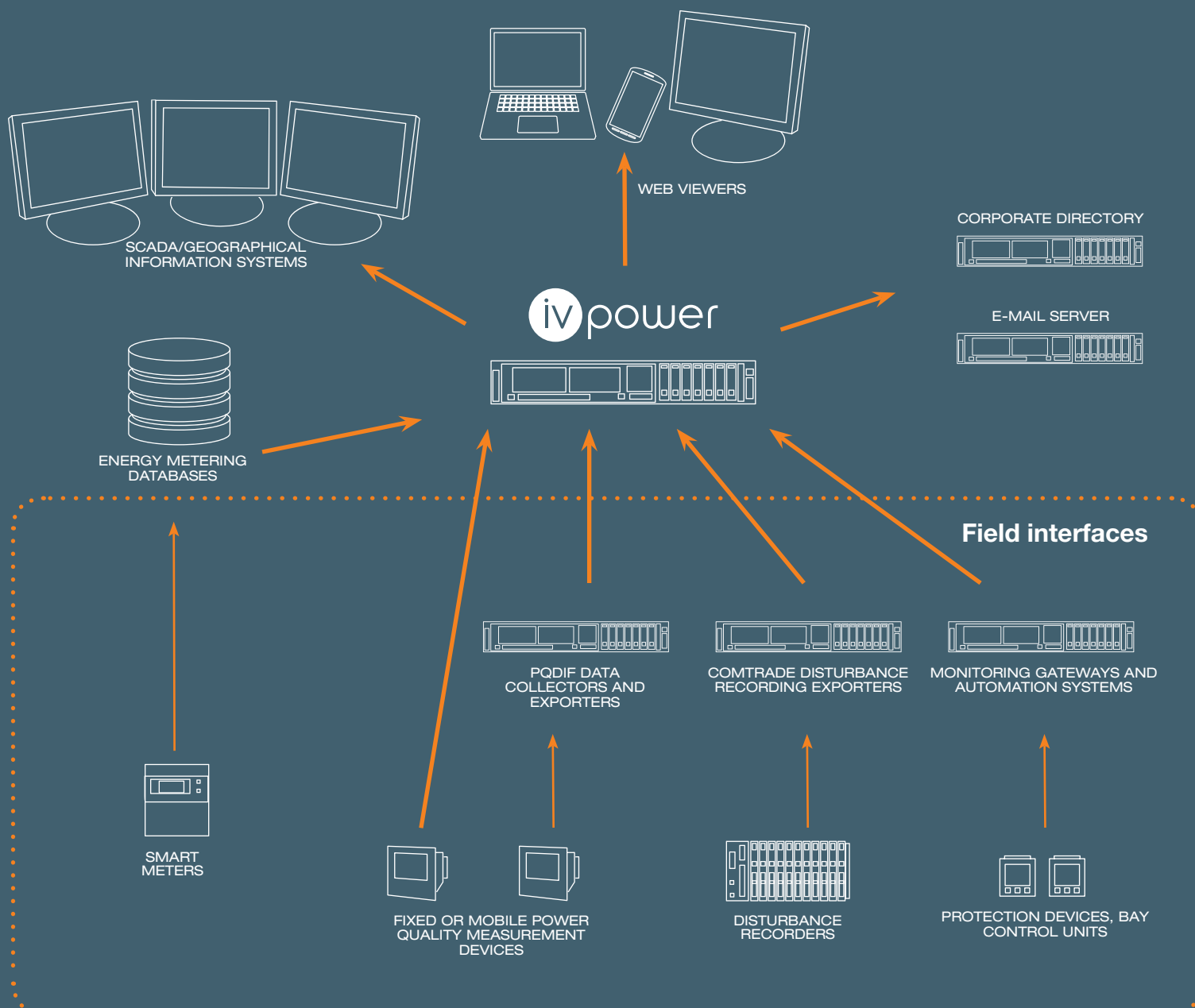
- Web and office Interface
- Installation on corporate servers or as an internet service
- Network integration (VLAN, WAN)
- Link to the corporate directory (LDAP)
- Notifications by phone, SMS and e-mail

Functions

- Power quality (Weekly reports, voltage dips, overvoltages, non-compliance with standards, calculations of margins, viewing on-line measurements and all recorded measurements)
- Fault analysis (fault location, overcurrent, protection tripping, etc.)
- Checking of the protection behavior
- Equipment monitoring (circuit breaker events, transformers)
- Monitoring of the load shedding schemes, the power factor and remote control signals
- Frequency monitoring and detection of islanding

Compatible systems

- Substation automation systems
- Disturbance recording collectors exporting the data in COMTRADE format
- Communication gateways or data collectors supporting IEC 61850, IEC 60870-5-104, IEC 60870-5-103 (virtual ports) and FTP
- Fixed or mobile power quality measurement devices
- PQDIF compatible systems for collecting measurements of power quality
- Smart meters
- Possible integration into SCADA and GIS (Geographical Information Systems)





The specialist in innovative monitoring

The pharmaceutical industry, power transmission and distribution networks, research laboratories: NetCeler has been designing innovative monitoring solutions for critical environments since 1997.

The company combines proven solutions and acknowledged professional expertise for designing solutions to meet its customers' requirements: **real-time measurement viewing, data tracking and archiving, system monitoring, process analysis and optimization, etc.** These solutions include all necessary **support services** as well as any special development work that may be required.

NetCeler's success is based on:

- **in-depth experience** in measuring and information systems and software development,
- **know-how** in research, engineering, deployment and maintenance for monitoring systems,
- **expertise in all activities** related to energy, power engineering and qualification of industrial solutions.

Its know-how

The company stands out for its ability to **integrate technological and business values into original solutions**. Its services are enhanced by the **strong links existing between the designer and the end-user**, its long-term customer support and a **corporate culture dedicated to collective performance and quality of human relations**.

A team of 35 real enthusiasts, mostly engineers, creates and deploys innovative monitoring solutions designed and built on the basis of **five key products**:

iv power

power quality monitoring and fault analysis in power transmission and distribution networks

iv energy

energy performance monitoring in service and industrial buildings

iv tracer

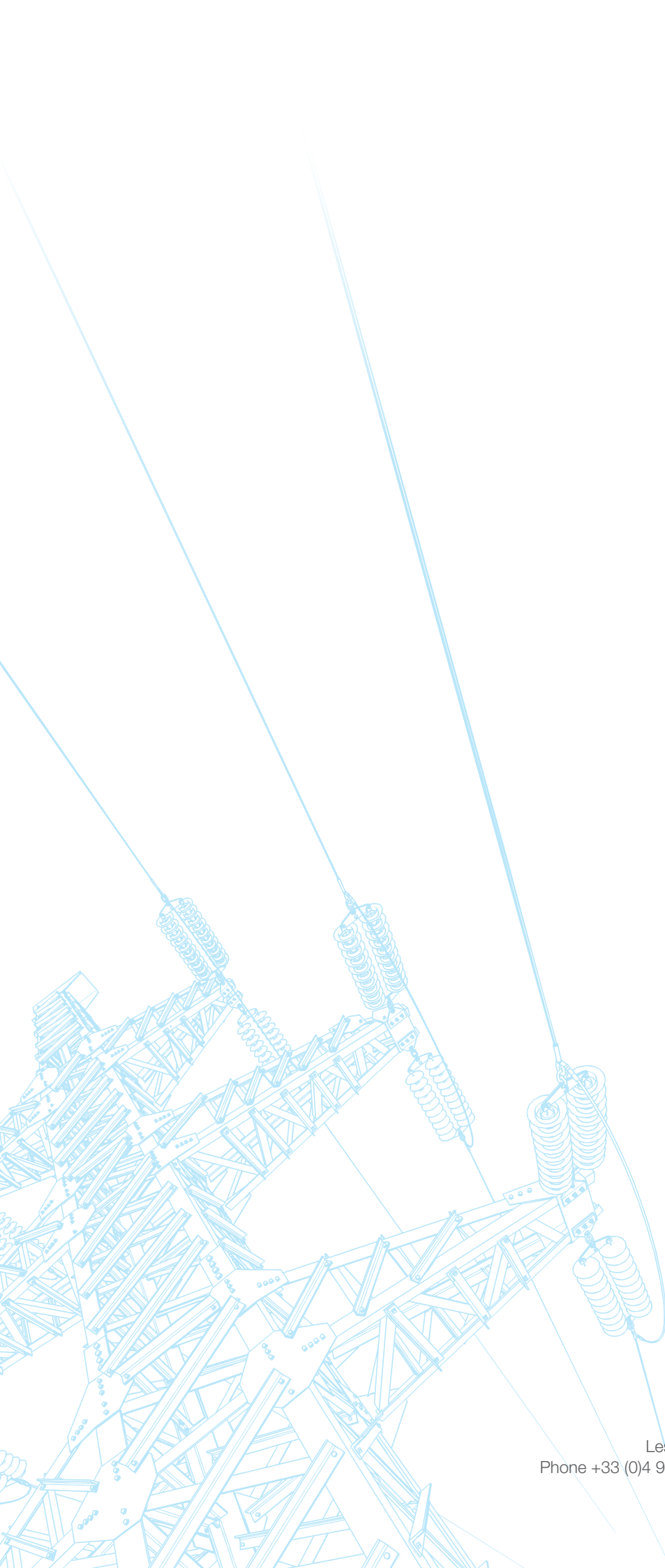
critical environmental parameters monitoring in pharmaceutical and associated industries

iv park

critical alarms monitoring and remote operation systems in car-parks

iv system

generic, flexible and innovative monitoring



netceler
innovative monitoring **solutions**

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