



Mastering interfaces between

# Humans

# Systems

# Connected things



Your Independent Global **SCADA** Provider

# Innovative software & hardware solutions for monitoring & control



Connectivity



HMI



Cyber  
Security

Monitoring  
& control



Vertical  
offer



Mobile  
solutions



# Facts & Figures

made available in

**10** languages



**100+**

people



working in  
ARC Group

**65 000+**

Licenses

installed in the world



**13** International  
Branches



**30+**

Years

of experience in **SCADA**



**\$15+** M Turn Over



**80%** of the companies  
ranked in the French  
stock-market index (CAC40)  
trust our solutions



Ranked among the Top



**100**

of French software companies



# Global player/Local approach

13 International branches

50 VAR around the world

Hundreds of local SI partners



# Our values

## **Innovative spirit**

Put Innovation at the heart of our strategy

## **Open mindset**

Connectivity.Interoperability.Openness

## **Continuous quality improvement approach**

From the design to the delivery

## **Customer centric philosophy**

Listen and find answer to our customers

# Our solutions

## Real Time Reporting Software

Collects and exploits data from any data source

Dynamic, real-time generation of reports and automatic distribution

Access and interact with information from many industrial systems

## Active Energy management using SaaS

Centralize the energy data

Help to control energy consumption

Identify potential savings

## HMI-SCADA

Optimized control over your processes

Secure, powerful and easily maintainable system

Built-in features that meet various market needs

## On-Call Management

Issues information through various media (Phone, SMS, email, fax, etc.)

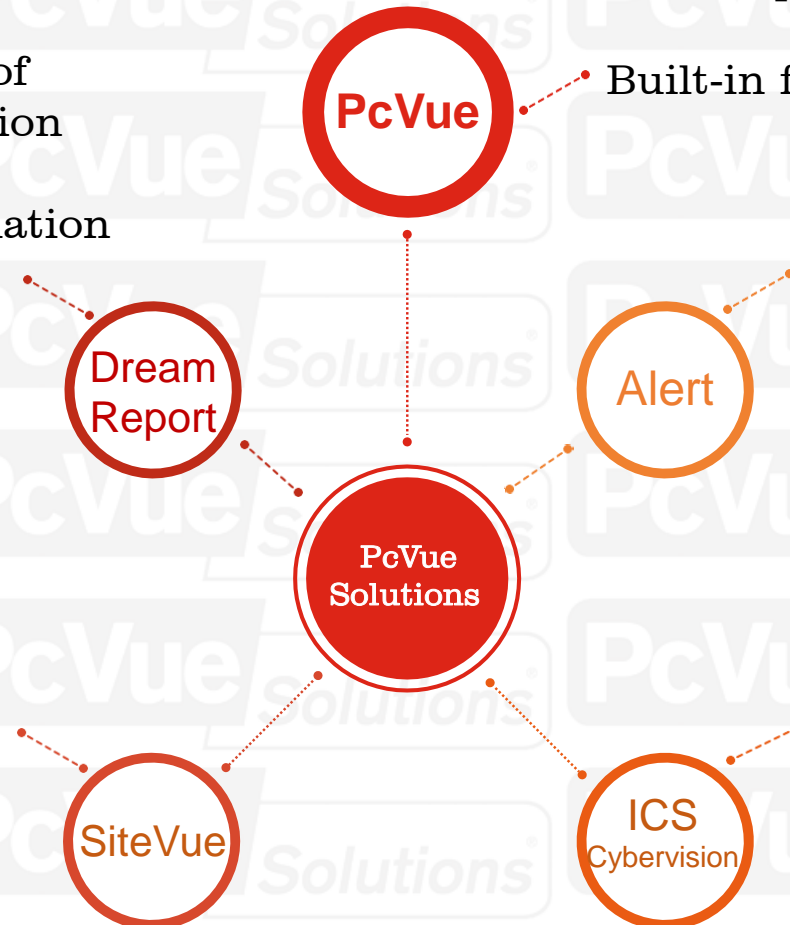
Easily connects with PcVue, or other SCADA systems, through a dedicated interface

## Cybersecurity - ICS CyberVision

Enable control engineers to detect malicious behaviors and reduce the attack surface

Facilitate incident response by gathering all the information required by Cybersecurity experts

Provide reports to the security officer



# Our Vertical Business approach...



## Industry

- Agro-alimentary
- Petrochemicals
- Manufacturing
- Nuclear
- Pharmaceuticals



## Environment

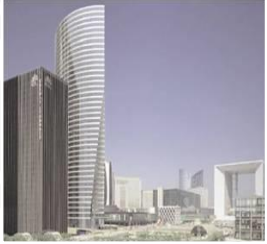
- Production, processing, distribution of water
- Waste processing



## Energy

- Nuclear production
- Heat production
- Renewable energy
- Distribution
- Metering

# Our Vertical Business approach...



## Building management

- Offices buildings
- Data centers
- Industrial facilities
- Hospitals
- Airport, train stations, parking lots
- Malls
- Universities



## Infrastructures

- Tunnels
- Bridges
- Airports
- Highways



## Transportation

- Tramways
- Trains
- Subways



# A unique service offering

**Listen. Answer. Never give up.**

Study of specifications

Conception, Functional Analysis, Application  
Modeling and Test

Installation, Configuration, Virtualization  
and Network

Assistance during development and on site,  
Application Audits

Maintenance and Revamping



# Company Partnerships

**Microsoft Certified Partner** since 2004

**OPC Foundation** member participating actively at many interop groups

Member of **BACnet International** and active member of several BACnet local interest group (Europe, China)

**LonMark** associate since 2000

**Smart Building Alliance** member

Member of the **DNP3 US** user Group



# Company & Product Certification



BACnet is a registered trademark of ASHRAE. ASHRAE does not endorse, approve or test products for compliance with ASHRAE standards. Compliance of listed products to requirements of ASHRAE Standard 135 is the responsibility of the BACnet Manufacturers Association (BMA). BTL is a registered trademark of the BMA.

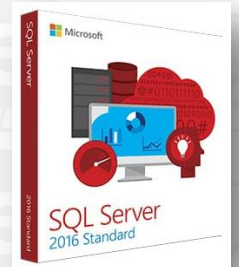
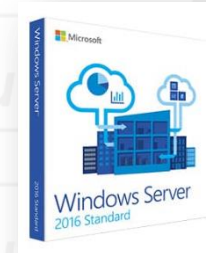
**ISO 9001 & 14001** for more than 15 years

PcVue is **BACnet BTL** listed as B-AWS



PcVue and its 61850 driver is **DNV-KEMA** Certified

# Our Technologies and Standards





# Economic gains using PcVue Solutions

A **modular offer** for all kinds of application, affording great capacity for reuse without further investment

Reduction of maintenance costs thanks to **high compatibility between versions**

PcVueSolutions

A **handy graphic interface** for reducing the users' training time

Reduction of development costs thanks to the **object-based approach**

# Risk Reduction using PcVue Solutions

Multi-vendor, built-in  
communication  
**drivers that are  
proven and optimized**

**Open system** for  
integrating future  
software components

PcVueSolutions

**35 years of  
experience** in SCADA

**ISO 9001  
certification** company  
and 100% focused on  
SCADA business

# They trust in PcVue Solutions



PETRONAS



Rolls-Royce



TOTAL



AIRBUS



RioTintoAlcan

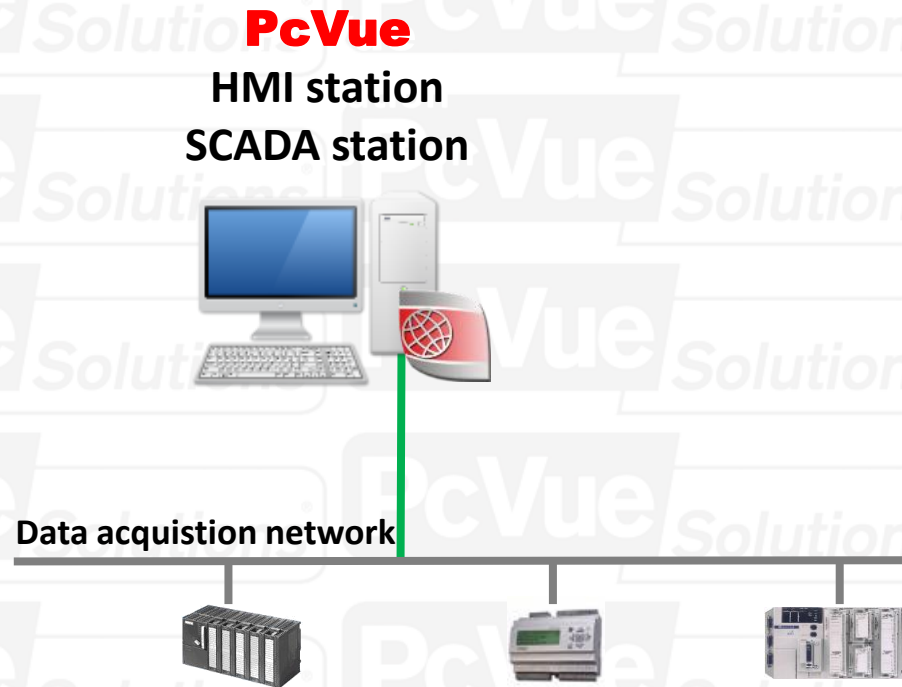


L'ORÉAL



# Versatile offer for any kind of project...

## Stand-alone station



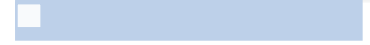
## Tag number



☐ From 75 to 300 000

☐ Unlimited internal tags

## Mode



☐ RunTime

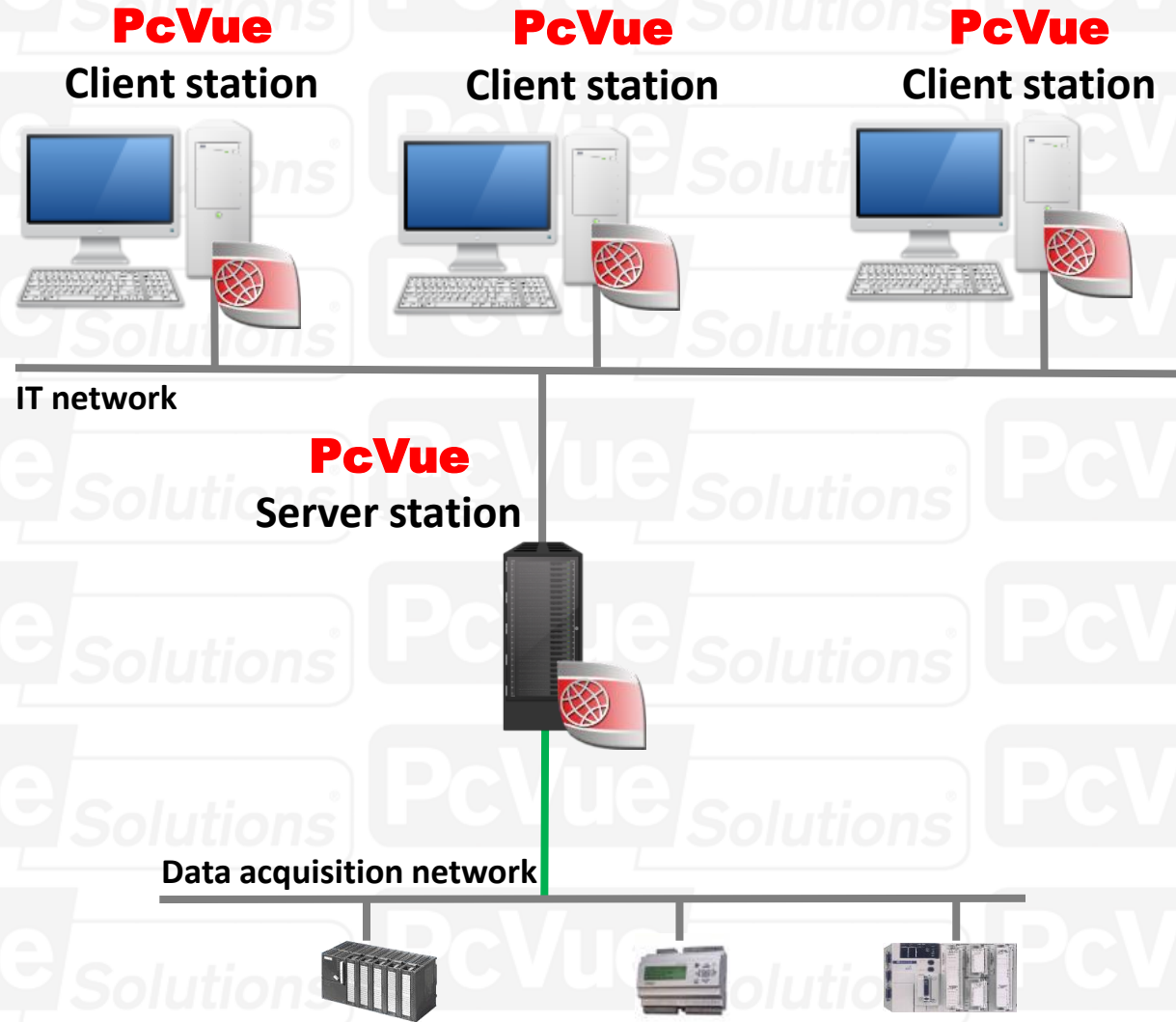
☐ Complete

☐ Engineering



# Versatile offer for any kind of project...

**Clients  
Servers**



The diagram illustrates a redundant server architecture for data acquisition. At the top, three **PcVue Client station**s are connected to an **IT network**. Below the IT network, two **PcVue Server station**s are connected to a **Data acquisition network**. These two server stations are enclosed in a red oval and labeled **Redundant Acquisition Servers**. The Data acquisition network is connected to three data acquisition modules. The diagram shows a clear separation between the IT network and the Data acquisition network, with the redundant server stations acting as the bridge between them.

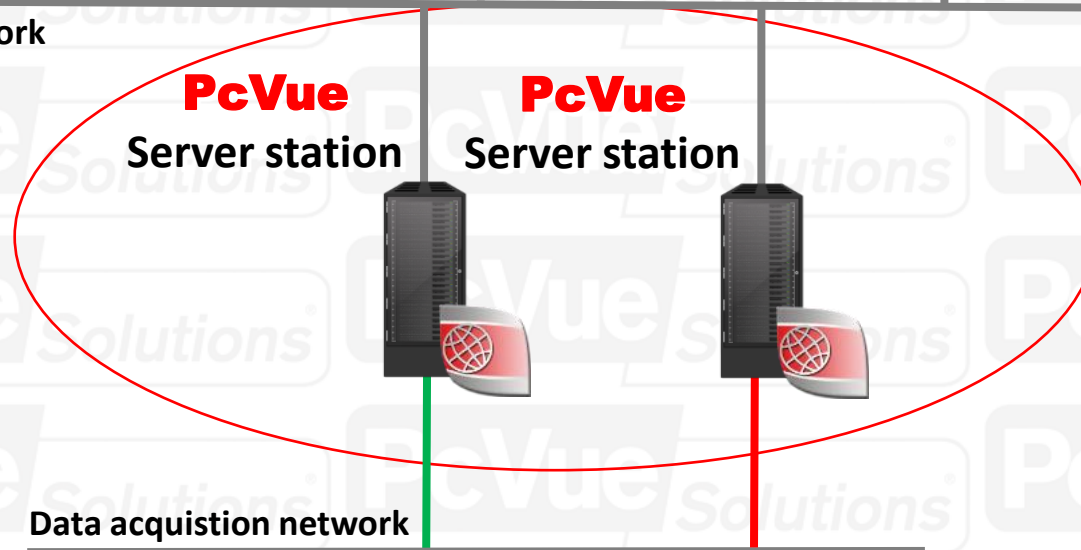
## PcVue Client station



## IT network

# PcVue

## Server station



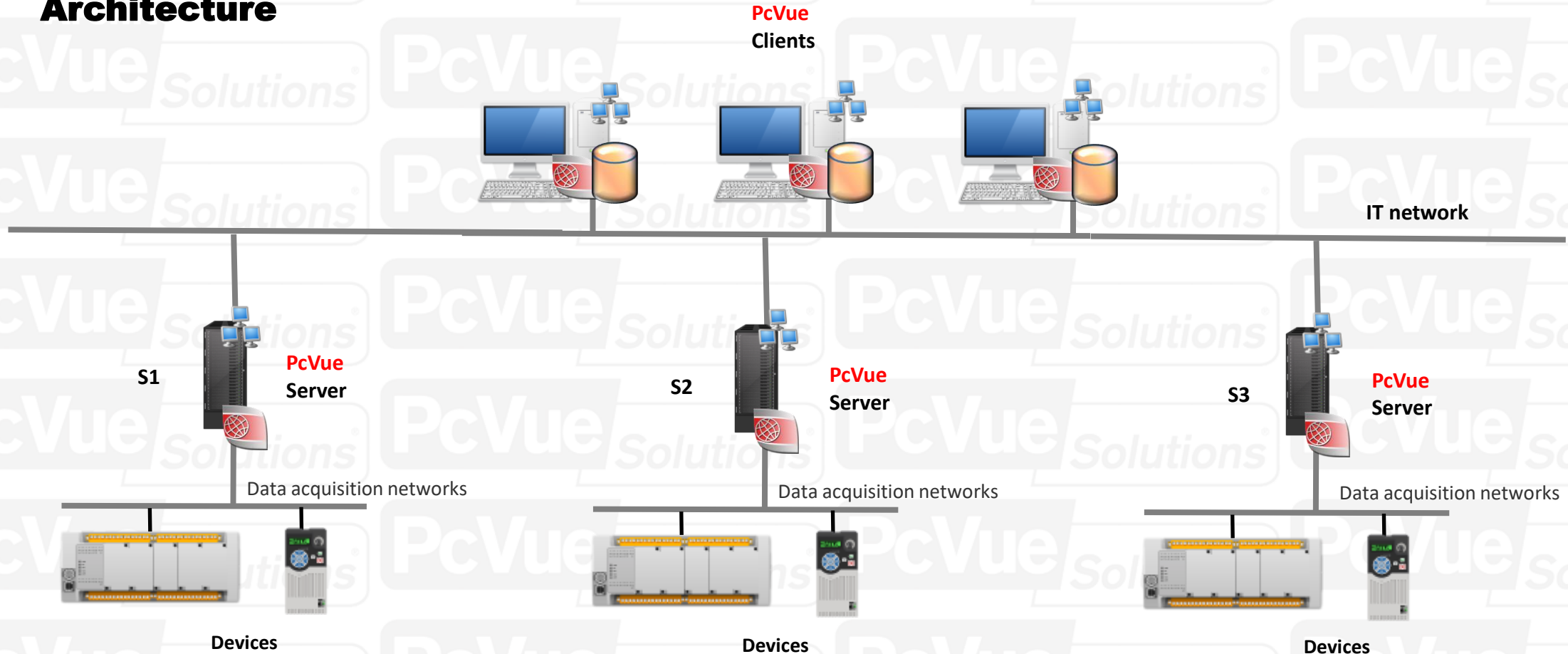
## Redundant Acquisition Servers

## Data acquisition network



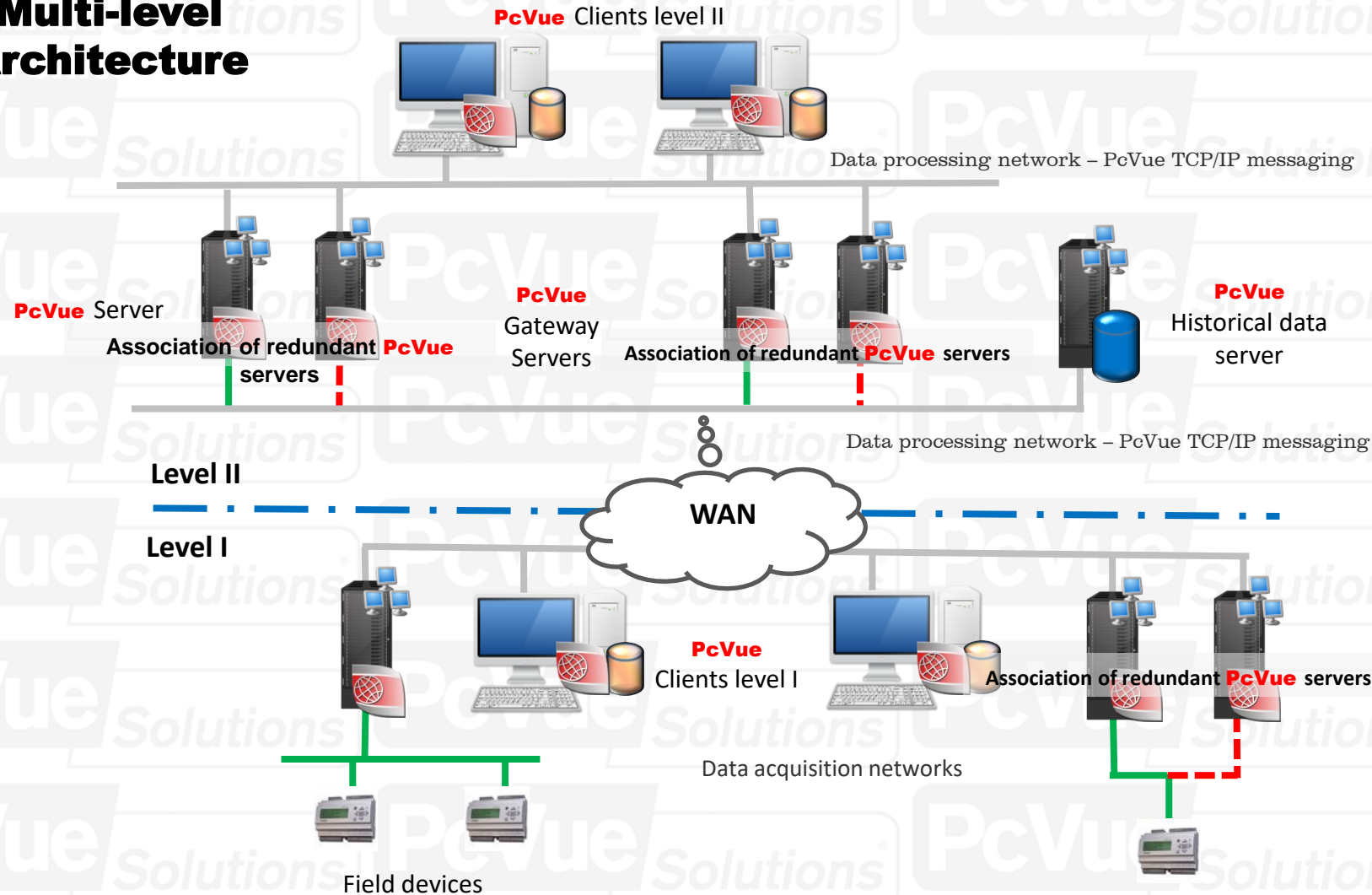
# Versatile offer for any kind of project...

## Distributed Architecture



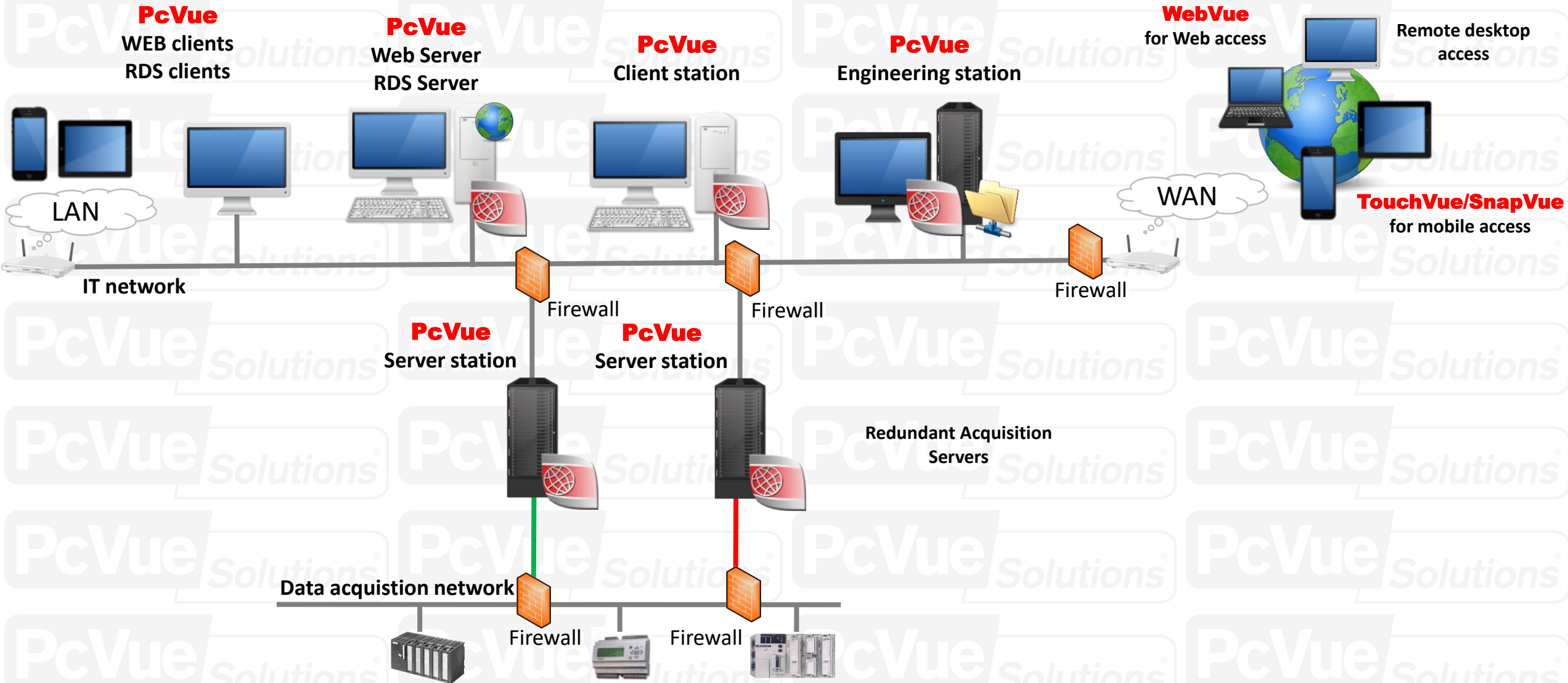
# Versatile offer for any kind of project...

## Multi-level Architecture

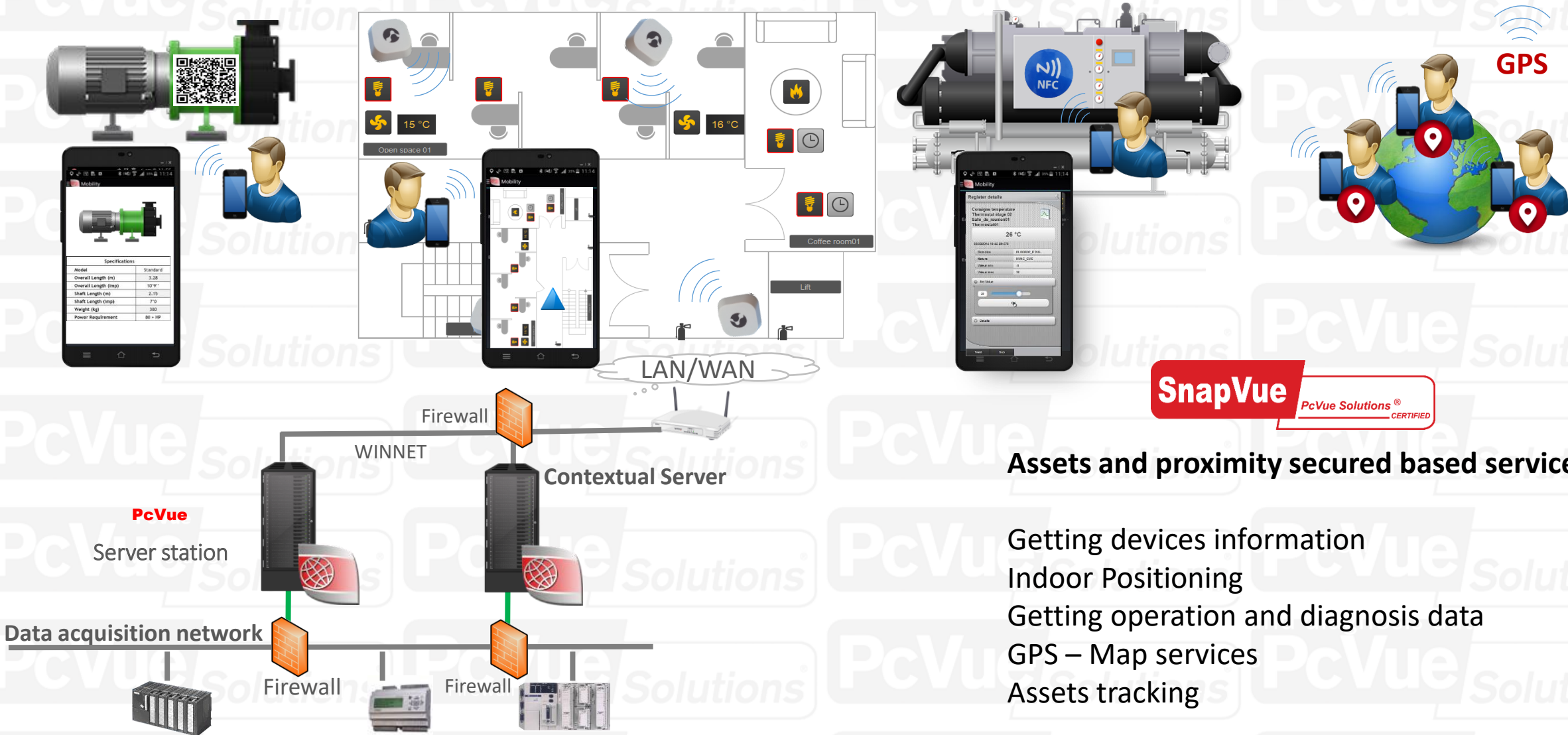


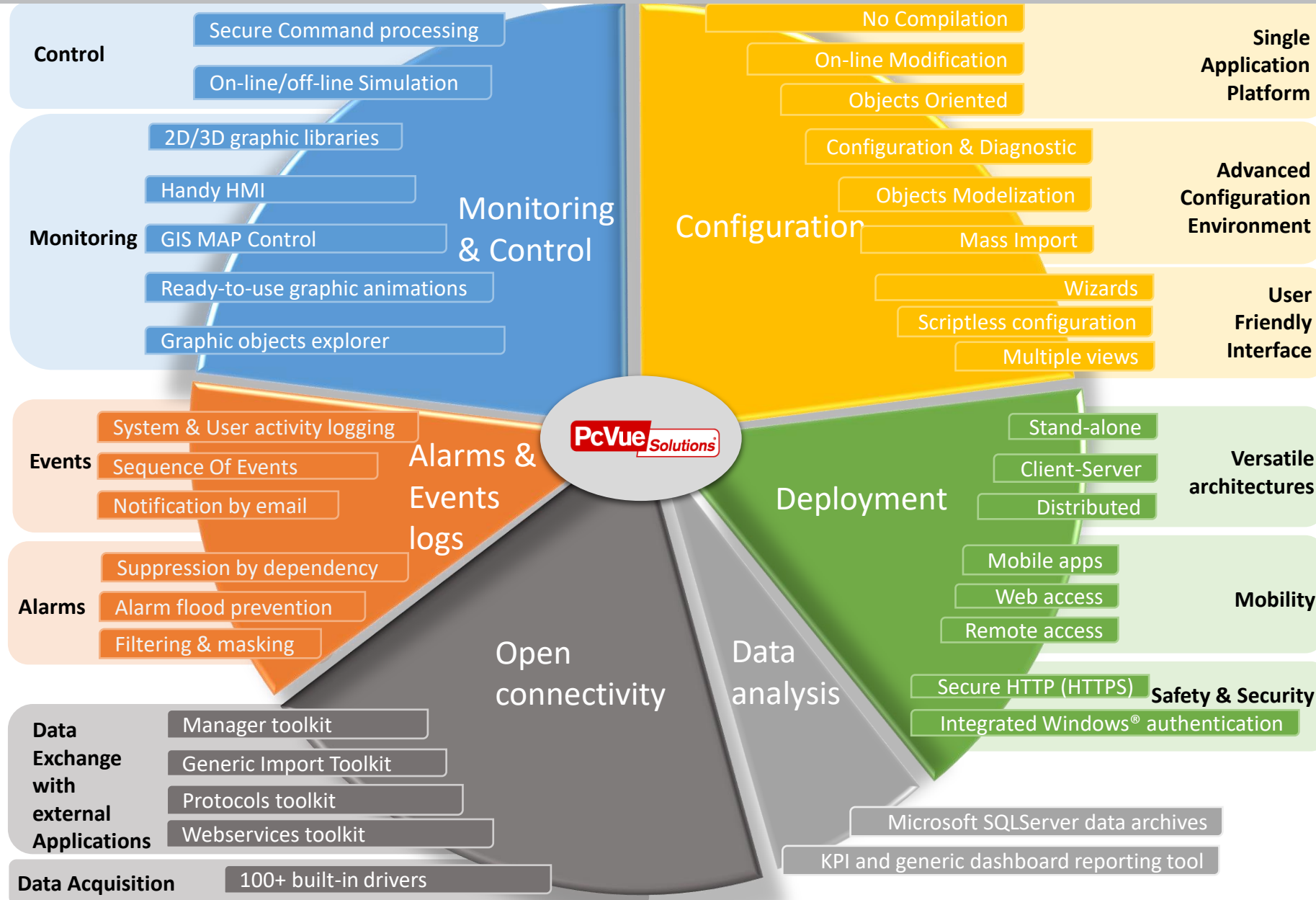


# Versatile offer for any kind of project...

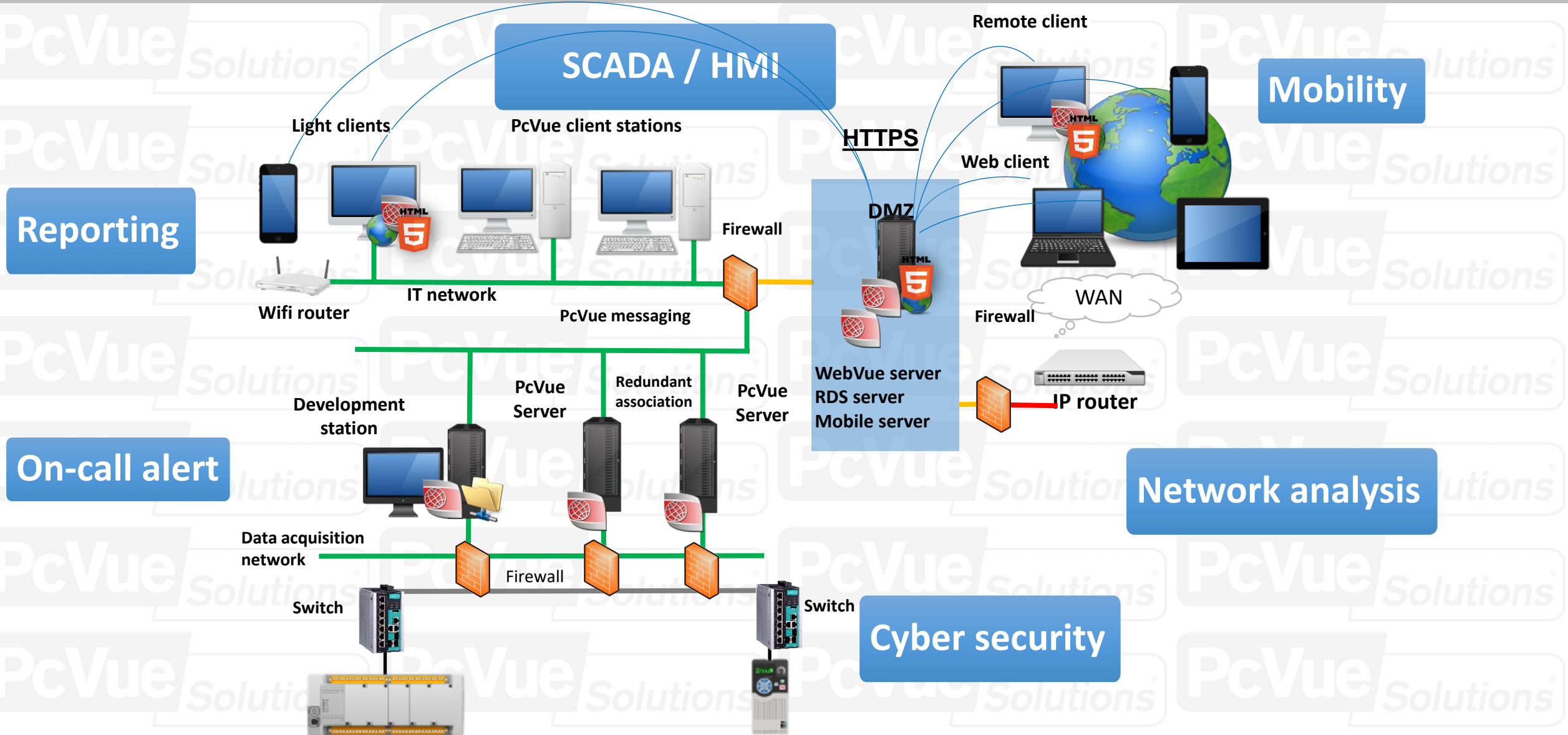


## SnapVue Clients





# PcVue Solutions Portfolio at a glance





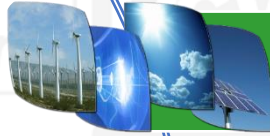
# Questions/Answers



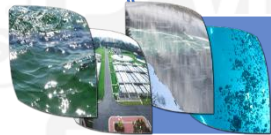
# Vertical markets



Building Management



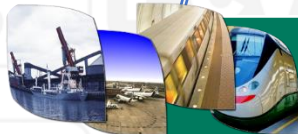
Energy



Water



Infrastructures



Transportation

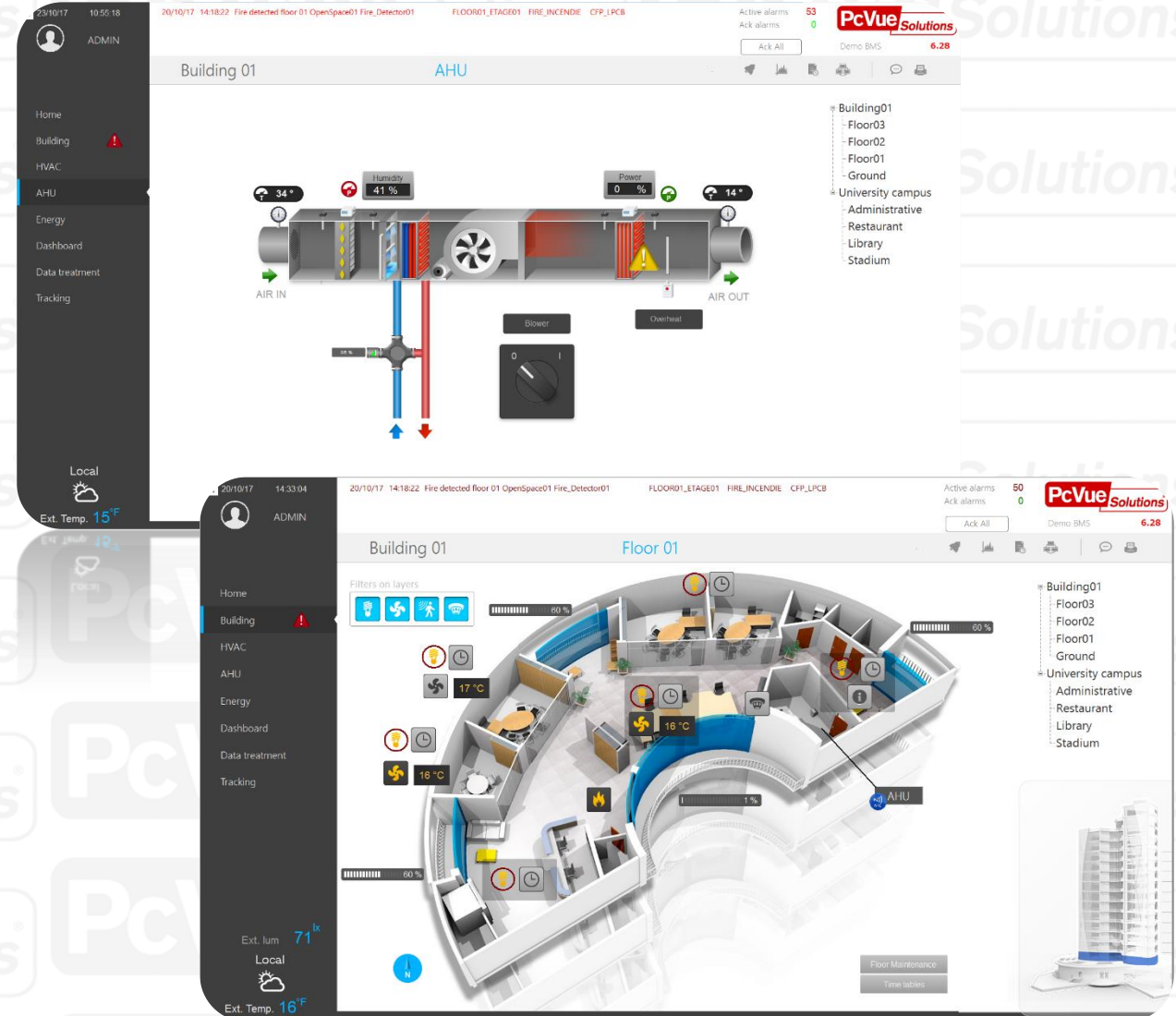


Industry

# Building Management



- **BMS dedicated libraries** with predefined objects (HVAC, lighting system, Fire detection, automatic door systems....)
- Built-in management for equipment of such BMS brands and standards as **BACnet®**, **KNX®**, **OPC®**, **LonWorks®** and **Modbus®**
- Automatic generation of mimics (Smart Generator) from **CAD files**
- User-friendly **Web based scheduler**
- Centralized user rights management for the operators (**Single-Sign On and Windows® Active Directory**)

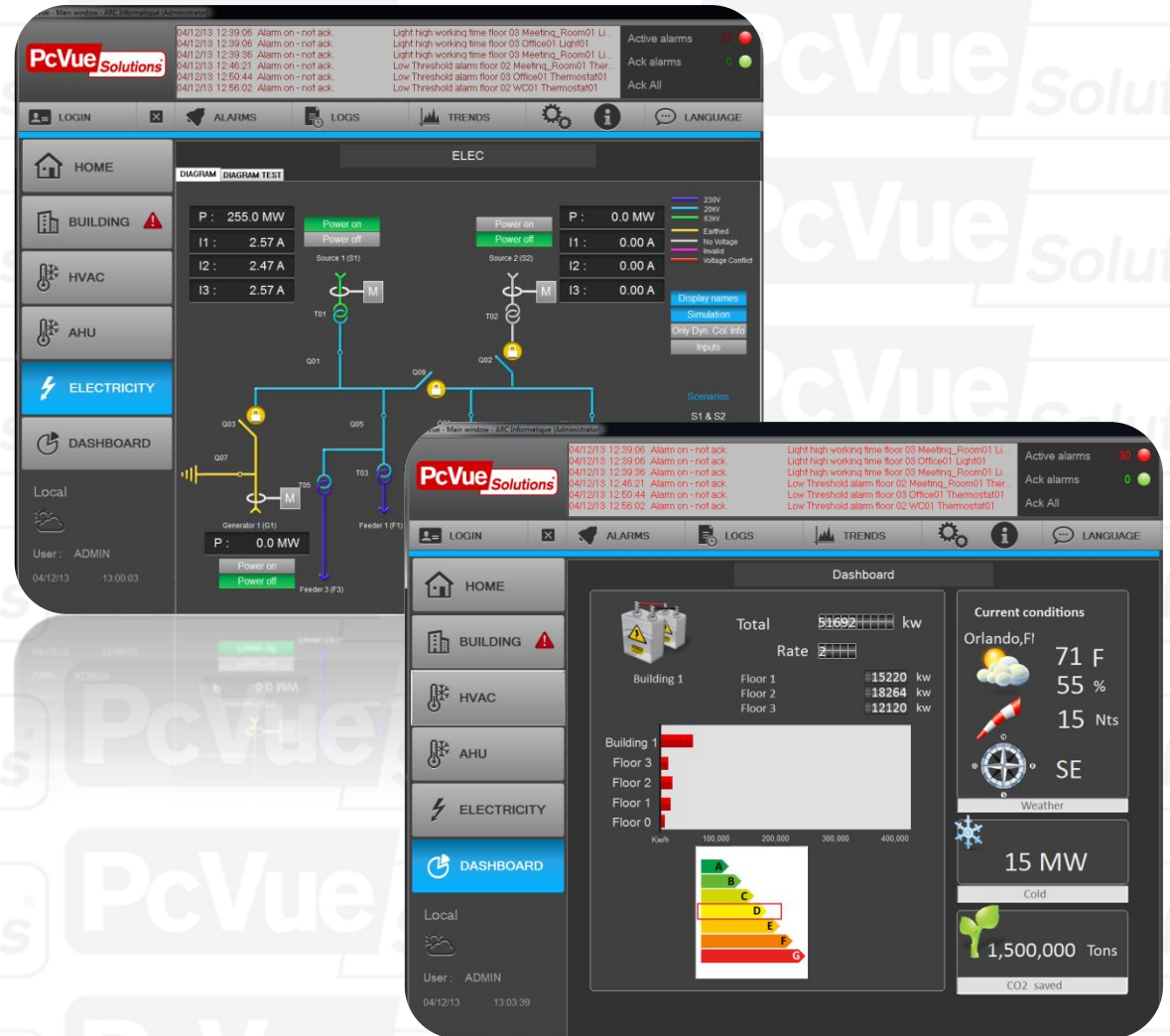


- 
- The image displays two screenshots of the PcVue Solutions software interface, which is used for monitoring and controlling industrial or building systems.
- Top Screenshot: Dashboard**
- Header:** Shows the date and time (20/10/17 14:18:22), active alarms (57), and the software version (PcVue Solutions 6.28).
  - Left Sidebar:** Contains navigation options: Home, Building (with a red alarm icon), HVAC, AHU, Energy, Dashboard (selected), Data treatment, and Tracking.
  - Main Content Area:**
    - Building 01:** The selected building.
    - PERIOD:** A section for selecting the time range (Start: 01/01/2013, End: 01/01/2014).
    - Visualizations:**
      - Répartition géographique par énergie (kW):** A 3D bar chart showing energy distribution by floor (Building, Floor 03, Floor 02, Floor 01, Ground).
      - Répartition par mois et énergie (kW):** A line chart showing energy consumption over time.
      - Répartition par mois et géographique (kW):** A bar chart showing energy consumption by month and floor.
    - Runtime navigator:** A small window showing a simplified floor plan.
  - Right Sidebar:** Lists the building's components: Building 01, Floor 03, Floor 02, Floor 01, Ground, University campus, Administrative, Restaurant, Library, and Stadium.
- Bottom Screenshot: Trends**
- Header:** Shows the date and time (13/12/17 15:11:21), active alarms (48), and the software version (PcVue Solutions 6.29).
  - Left Sidebar:** Contains navigation options: Home, Building (with a red alarm icon), HVAC, AHU, Energy, Dashboard (selected), Data treatment, and Tracking.
  - Main Content Area:**
    - Building 01:** The selected building.
    - Filtres sur caques:** A section for selecting the time range (Start: 14/05/2014, End: 01/01/2014).
    - Visualizations:**
      - Maintenance Etage:** A section for selecting the floor (Maintenance Etage, Tables horaires).
      - Period:** A section for selecting the time range (Start: 14/05/2014, End: 01/01/2014).
      - Zones:** A list of zones (Zones 01, Zones 02, Zones 03, Zones 04, Zones 05, Zones 06, Zones 07, Zones 08, Zones 09, Zones 10, Zones 11, Zones 12, Zones 13, Zones 14, Zones 15, Zones 16, Zones 17, Zones 18, Zones 19, Zones 20, Zones 21, Zones 22, Zones 23, Zones 24, Zones 25, Zones 26, Zones 27, Zones 28, Zones 29, Zones 30, Zones 31, Zones 32, Zones 33, Zones 34, Zones 35, Zones 36, Zones 37, Zones 38, Zones 39, Zones 40, Zones 41, Zones 42, Zones 43, Zones 44, Zones 45, Zones 46, Zones 47, Zones 48, Zones 49, Zones 50, Zones 51, Zones 52, Zones 53, Zones 54, Zones 55, Zones 56, Zones 57, Zones 58, Zones 59, Zones 60, Zones 61, Zones 62, Zones 63, Zones 64, Zones 65, Zones 66, Zones 67, Zones 68, Zones 69, Zones 70, Zones 71, Zones 72, Zones 73, Zones 74, Zones 75, Zones 76, Zones 77, Zones 78, Zones 79, Zones 80, Zones 81, Zones 82, Zones 83, Zones 84, Zones 85, Zones 86, Zones 87, Zones 88, Zones 89, Zones 90, Zones 91, Zones 92, Zones 93, Zones 94, Zones 95, Zones 96, Zones 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# Energy



- Built-in **time stamped protocol** – data discrimination
- Dedicated electrical protocols (**IEC61850 DNV-KEMA certified, IEC 60870-5-104 Client & Server, DNP3**)
- Network behavior **simulation**
- Built-in **Busbar coloring function**
- **Redundant architectures** for high availability systems, data acquisition and backup
- Built-in Map Control for **GIS integration** (Geographic Information System)

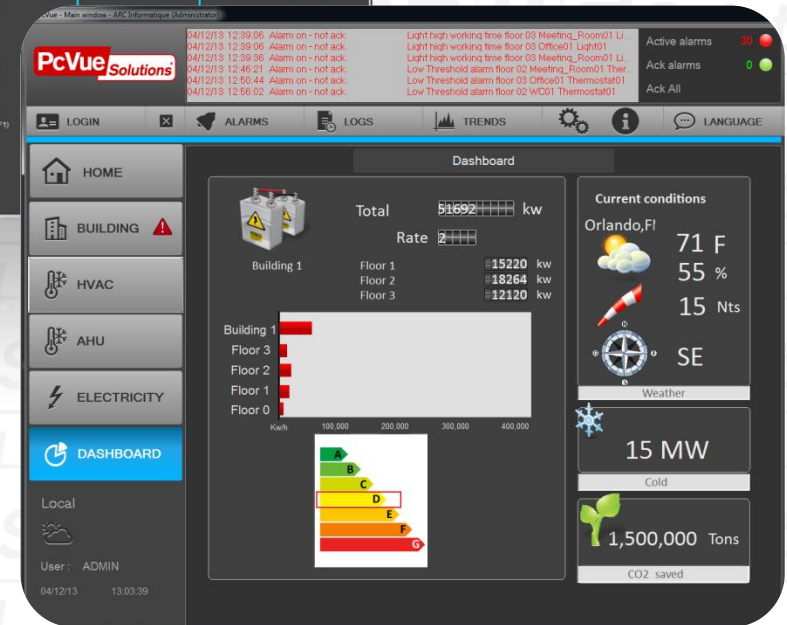
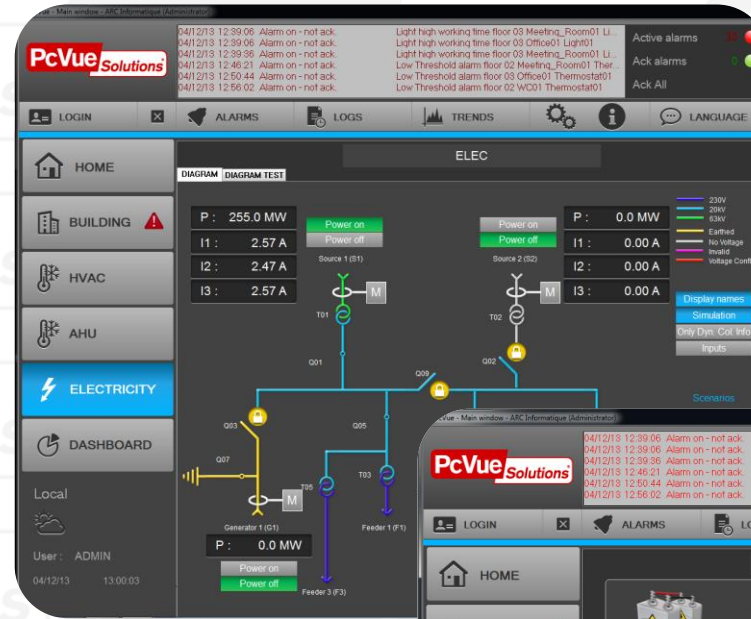




# Energy

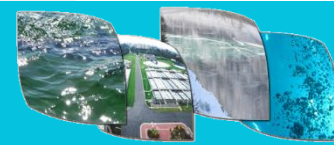


- **Archiving and reporting** (via SQL Server) for diagnosis in case of electrical network failure
- **2D/3D graphic library** and ISO objects for electrical distribution environment (circuit breaker, switch, etc.)
- **SOE** (Sequence Of Events) **management**
- Graphic animations with specific **color-to-object coding**
- **Mobile app** and **Indoor Positioning services** for easy data access

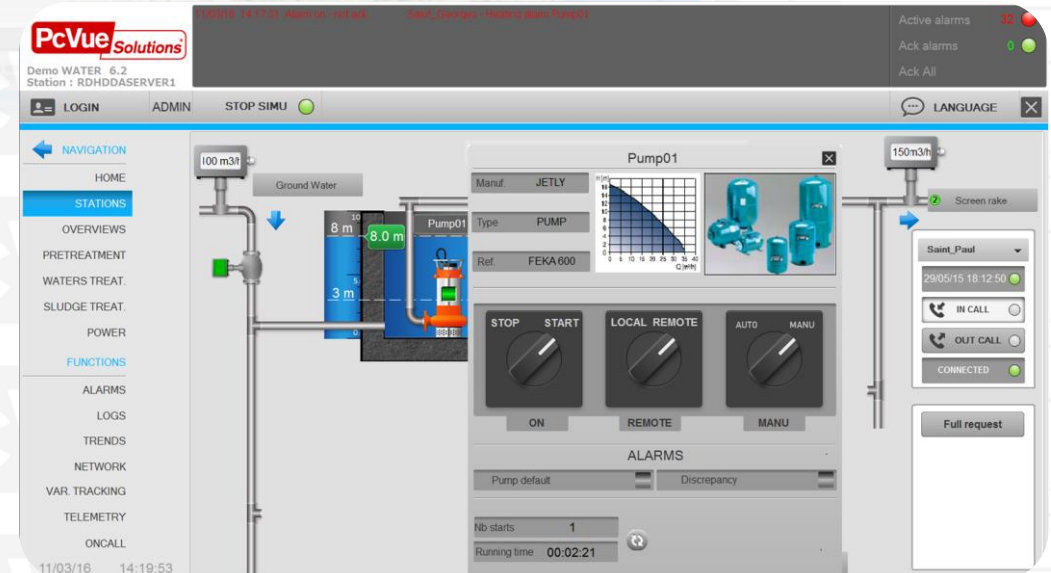
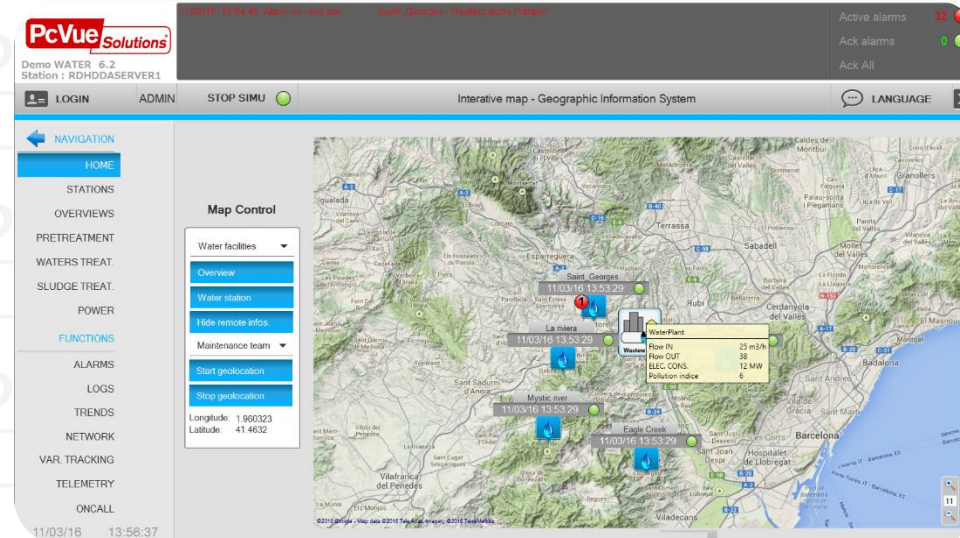




# Water



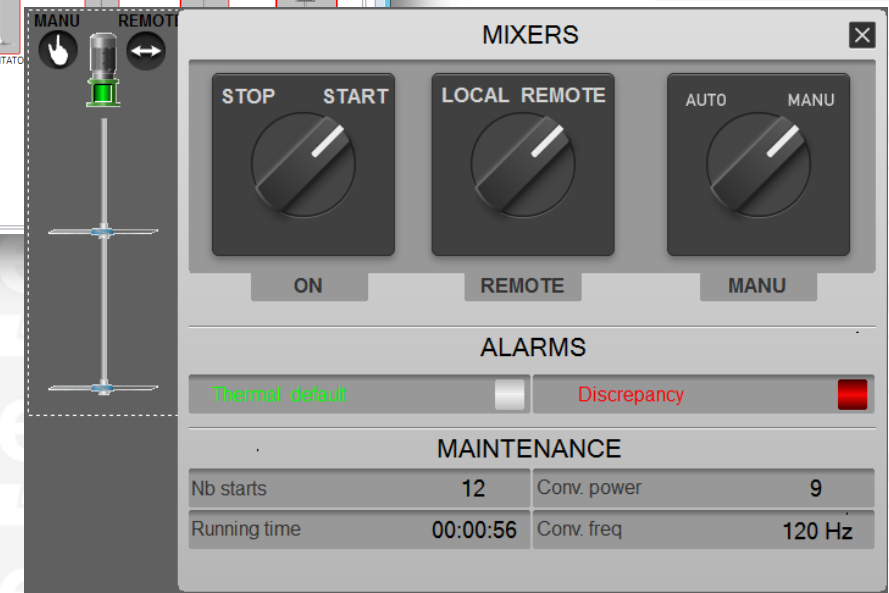
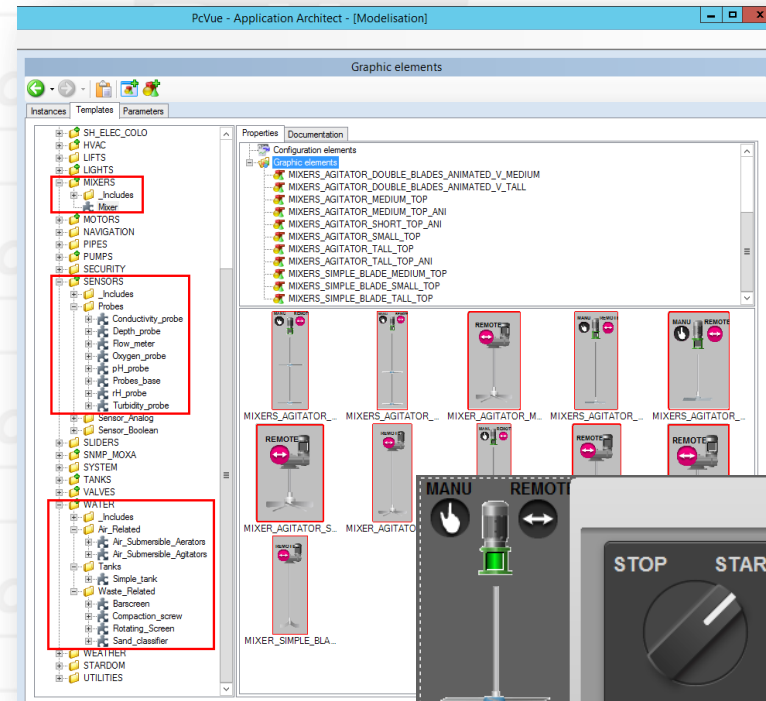
- Solutions for **purification** plants, for **drinking water** and for **waste water**
- Automatic **data archiving**
- Automatic generation of balance sheets and **reports** for regulatory compliance
- Audio alarm notification system, GSM, Email, SMS etc.
- High **availability** architecture to sustain continuous service



# Water



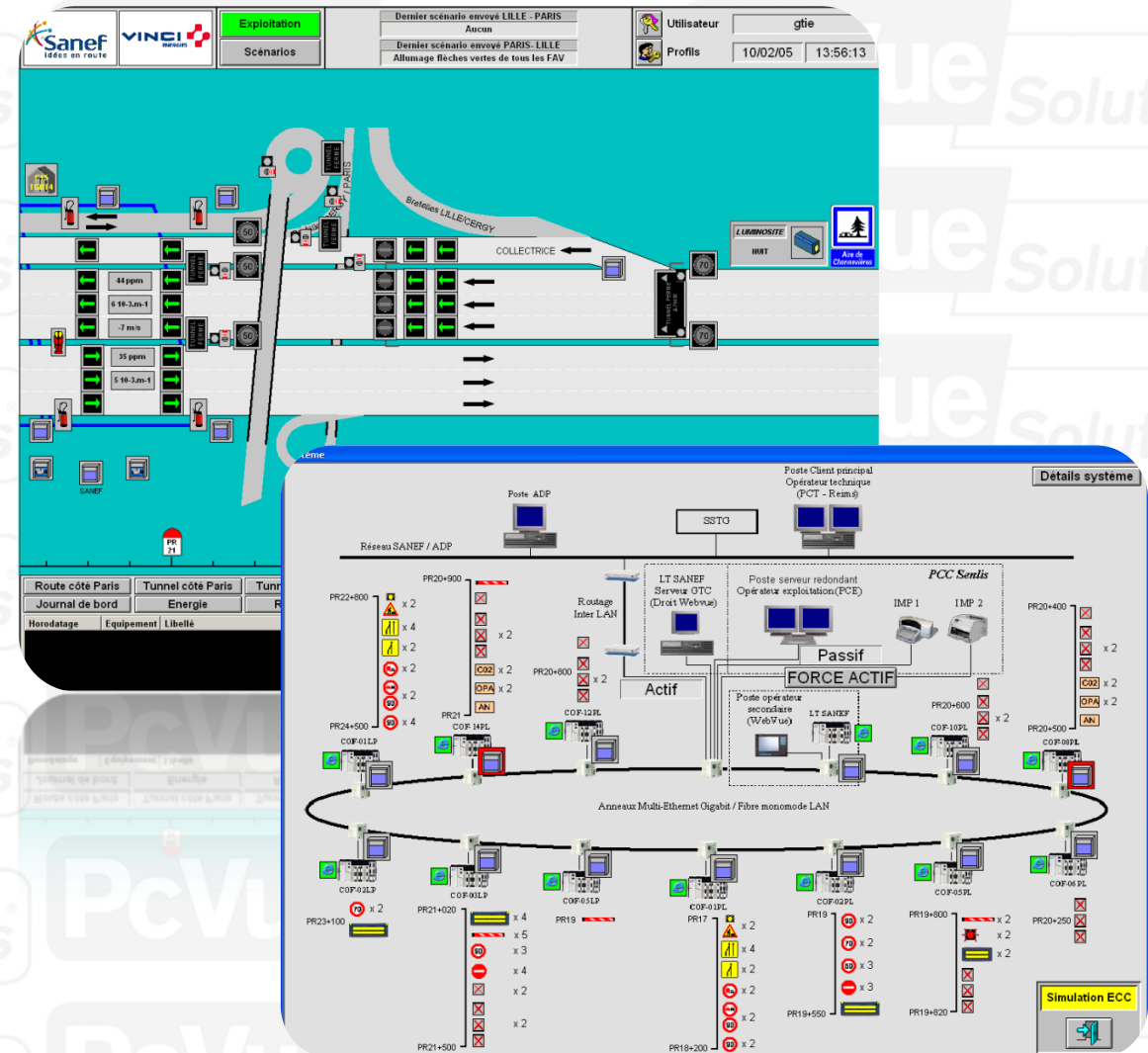
- **Flexible system architecture** (single station, client/server)
- Secure remote **Web Client** for maintenance, call schedule, owner, local groups etc.
- **Water dedicated libraries** with predefined objects
- Incoming **call management**
- Powerful **trending features**
- Archiving and reporting (**SQL Server**)



# Infrastructure



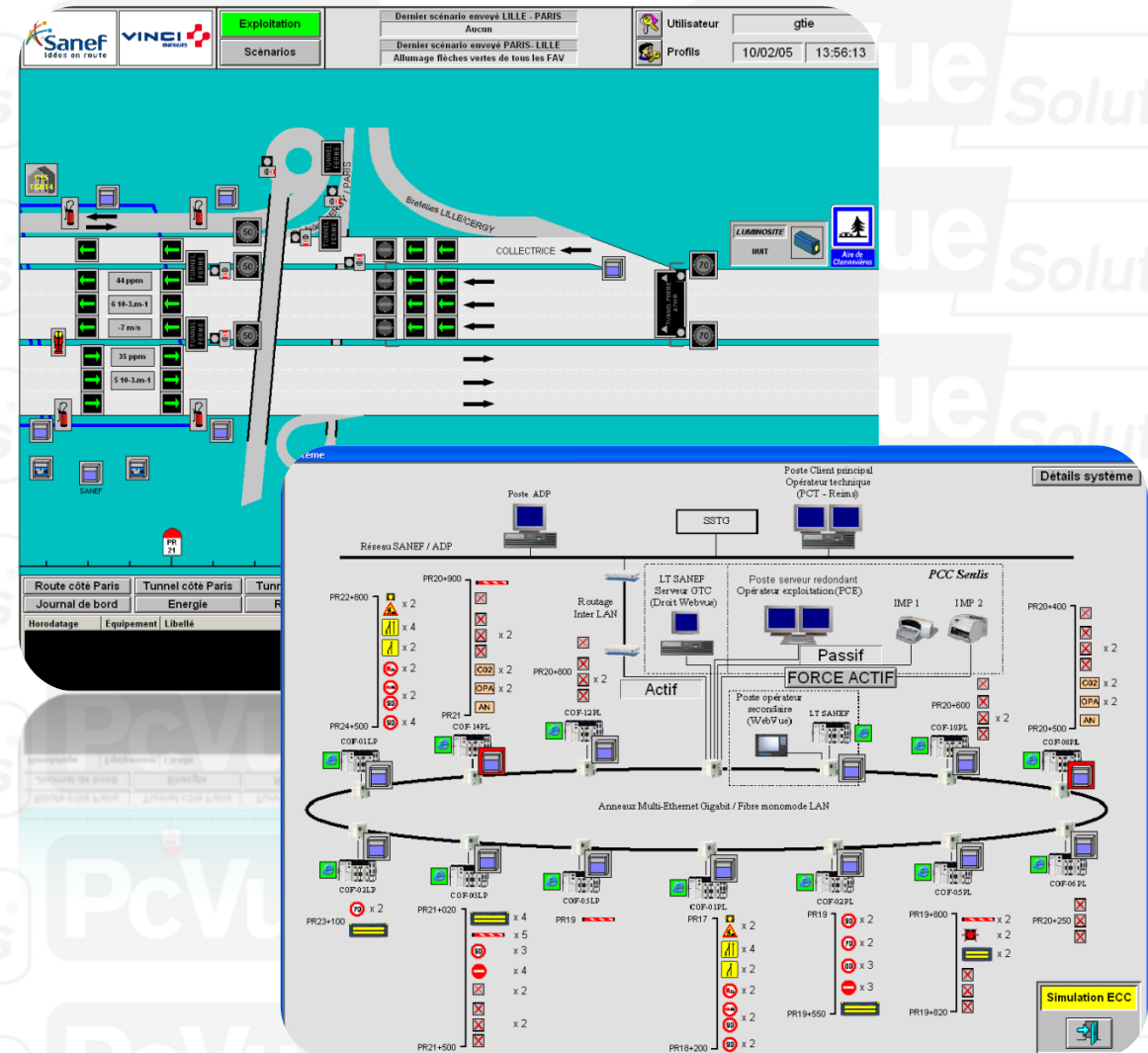
- High-availability system architecture
- **Fire detection protocols** management
- **Advanced user right** management
- **Scenario Event Management** (SEM) for traffic and lanes
- **Video surveillance** and security camera integration system
- Integration of **interphone** over **IP** (emergency call etc.)



# Infrastructure



- Automatic mimic generation from **AutoCAD®** files
- **VCR** (playback) functionality support
- Operation Aid System interface
- Built-in **GIS solution** (Geographic Information System)
- **Alarm filtering** by geographic zone, bridge, tunnel, railway etc.
- Archiving and **reporting** (SQL Server) for diagnosis





# Transportation



- High-availability system architecture
- **IP video surveillance** integration
- **Interphone** over IP integration
- **VCR** functionality support
- Built-in Map Control for **GIS integration** (Geographic Information System)



# Transportation




- Alarm **filtering by geographic zone**, line & station
- High **resolution mimics** (max. 10,000 x 10,000 pixels)
- Native management of **multi-screen** displays & video arrays
- Graphic animations with specific **color-to-object coding** (electric circuit, sidings, signals etc.)
- **Development kit** for third party applications interface (vehicle tracking, space-time diagram etc.)







 **Protocol** management for main **PLC brands**  
(Schneider Electric, Siemens, Rockwell,  
Beckhoff, Saia, Wago...)

 **2D & 3D graphic library** and ISO objects for  
industrial environments

 **Batch** management and user-friendly control  
interface

 Interface with **SPC** (Statistical Process Control)  
charts

 **Reporting**

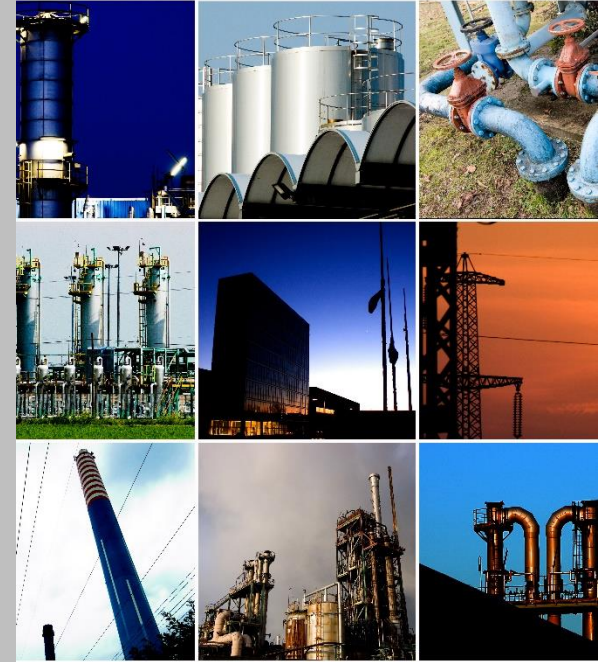


- **ERP** (Enterprise Resource Planning) interface—manufacturing order management and follow-up
- **CMMS** interface
- Archiving and reporting (SQL Server) with **batch number**, range etc.
- **21 CFR Part 11** (double signature, audit trail etc.)





Your Independent Global **SCADA** Provider



Thank you for your attention!

# Stay tuned!



[www.pcvuesolutions.com](http://www.pcvuesolutions.com)