HW group®

About the HW group company

Agenda

- Company introduction

- Remote Monitoring Eco-System, HW group products & services

- STE2 r2: Top selling HWg product

- Sensors / Detectors

- Why Remote Monitoring Eco-system (Portal)?

- Poseidon2 & Damocles2: Professional monitoring products

- Several Use-cases / How to design projects

- Ares: GSM / LTE remote monitoring products

- Water Leak Detection systems / WatchDog products

- Portal: Just an option or mandatory (IoT Monitoring)?

- SensDesk Technology = More than 3 portals

- References

- Do you want to sell hardware or HW + services?

- IoT Monitoring concept

Company introduction

HW group s.r.o

- Prague / Czech Republic / EU

- Privately owned company (1 owner)

- 40+ distributors worldwide

- 25 000+ IP based monitoring units sold per year

- Premium products and support

- Focused on quality and long-term compatibility

- Large product eco system

- R&D and manufacturing in the Czech Republic

- Whole eco system for partners to sell monitoring services with monthly payments..

„From monitoring products to complete eco system for monitoring service providers."

# What does it means "Remote Monitoring"

The security system secures your object (company / house) against thieves.

- Sensors & Detectors

- Alarm control panel (keypad)

- Local Alarm – siren

- Remote Alarm – owner's mobile

- Alarm service - arrival
of security service
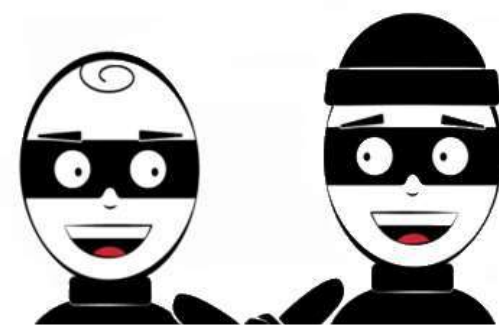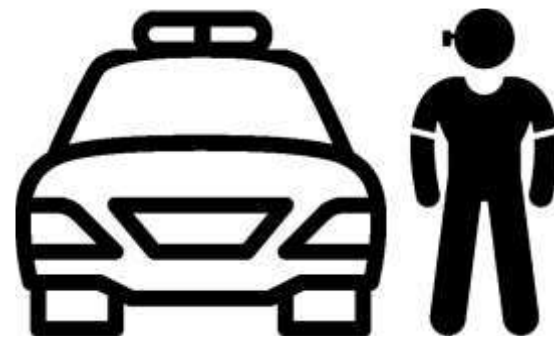
Monitoring system secures your sensitive infrastructure against environmental risks.

- Technology room

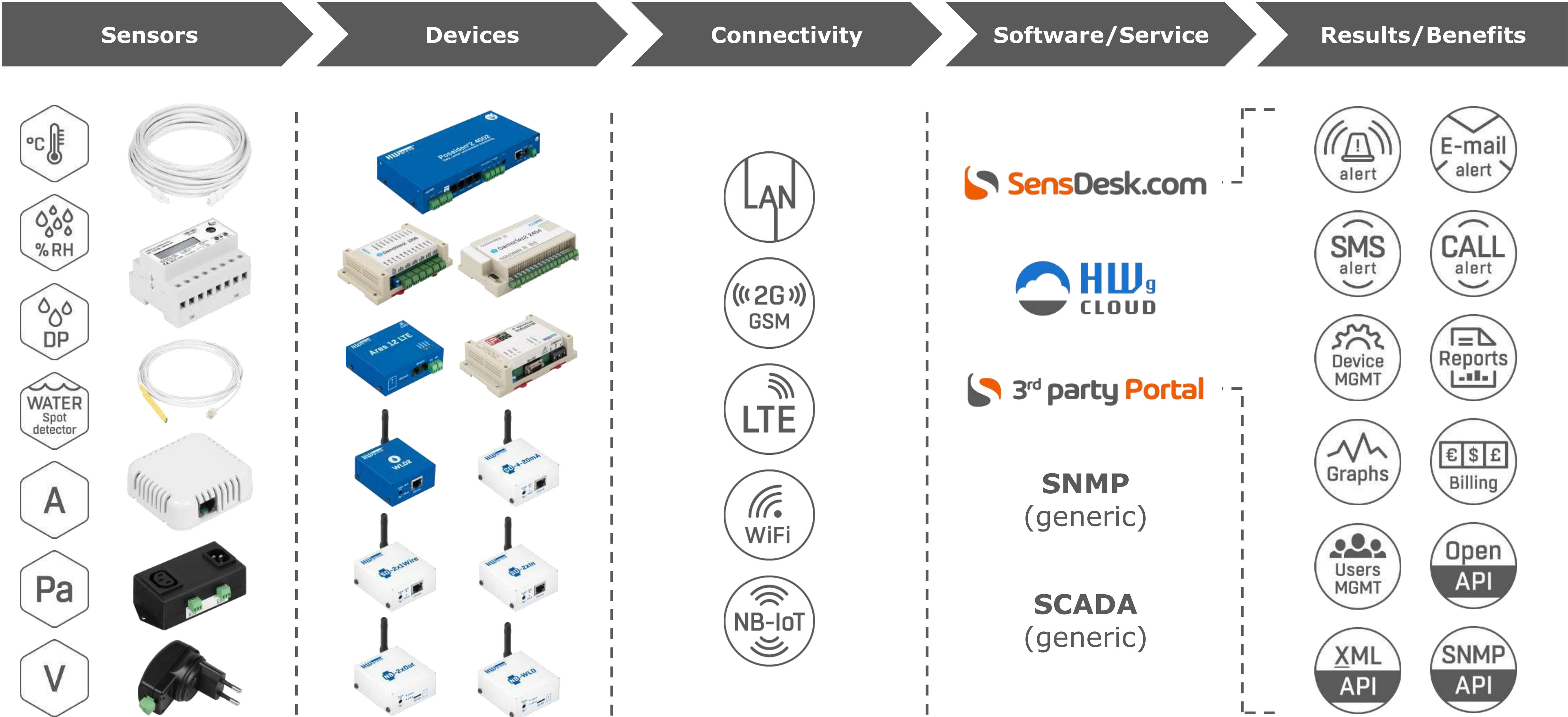- Datacenter

- Freezers

- Warehouse
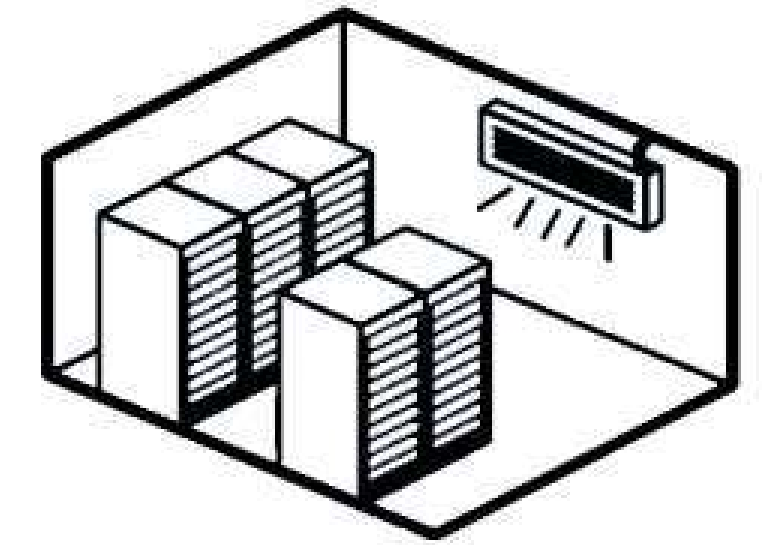
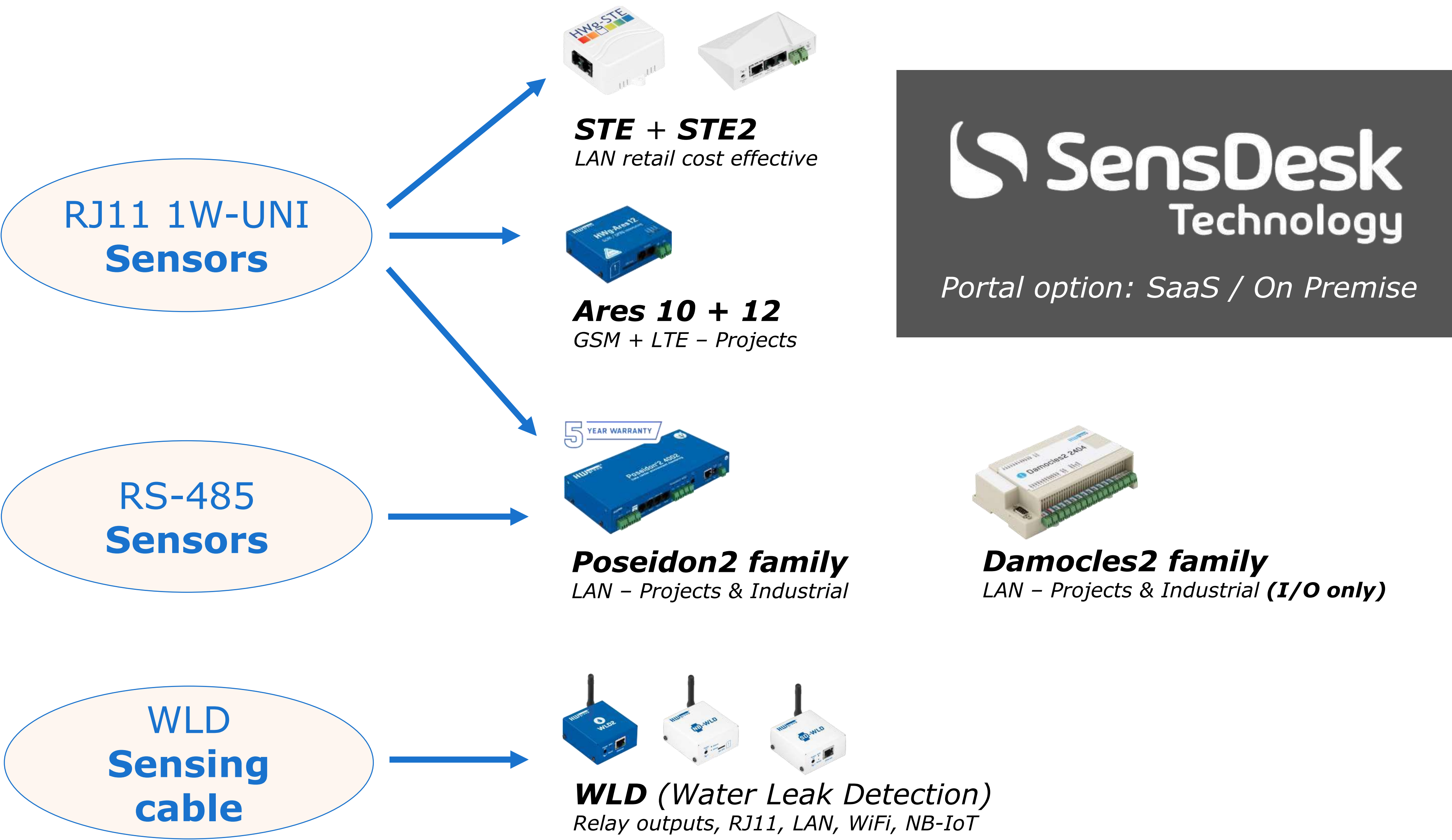B2C: Everything from the sensor to the alert message (**for 1 person**).

B2B = Project:
Sensors, devices, software (services), alert process with escalation, connectivity to external services etc..

Sensor to graph: Remote Monitoring Eco System

Sensors | Devices | Connectivity | Software/Service | Results/Benefits

HW group products & services

cartronicgroup

STE + STE2
LAN retail cost effective

SensDesk Technology

Portal option: SaaS / On Premise

HWg-PWR
LAN/M-bus energy meters GW

Ares 10 + 12
GSM + LTE – Projects

IP WatchDogs
LAN ping based restarters

RJ11 1W-UNI Sensors

RS-485 Sensors

Poseidon2 family
LAN – Projects & Industrial

Damocles2 family
*LAN – Projects & Industrial **(I/O only)***

SH4 + locks
LAN Access control system

WLD Sensing cable

WLD *(Water Leak Detection)*
Relay outputs, RJ11, LAN, WiFi, NB-IoT

Serial port
LAN / RS-232 products

HW group ®

STE2r2 is our top selling product
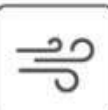
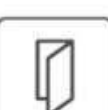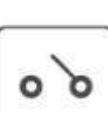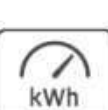# Why is this one top selling?
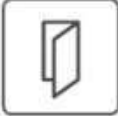
1) Retail packaging, many distributors pushing to local IT web-shops.

2) 30 pieces package has better price.

3) Contains Power adaptor also PoE ready device.

4) Easy to use retail package for BFUs, even temperature sensor included..

5) Good enough for smaller projects.

6) STE2 is **opening doors** for remote monitoring projects.

7) Can be used **with Portal** (IoT Monitoring) even **without Portal** (Standalone Monitoring)
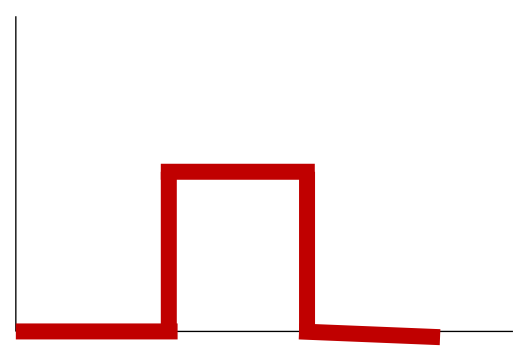
Sensors / Detectors

Atmospheric pressure

Light intensity

Air Quality CO_2

Air Quality VoC

Temperature

Dew point

AC / DC Voltage

Current interface

Water Spot detection

AC / DC current

Relative Humidity

Smoke detection

Vibrations detection

Air flow detection

Power presence detection

Gas detection

230V presence detection

Door contact detection

Motion detection

Dry contact state detection

S0 pulse counter

STE2 r2 scheme

Smoke detection

Vibrations detection

Air flow detection

Power presence detection

Gas detection

230V presence detection

Door contact detection

Motion detection

Dry contact state detection

S0 pulse counter

Pa — Atmospheric pressure

Light — Light intensity

CO_2 — Air Quality CO_2

VoC — Air Quality VoC

°C — Temperature

DP — Dew point

V — AC / DC Voltage

4-20 mA — Current interface

FLOOD Spot detector — Water Spot detection

A — AC / DC current

%RH — Relative Humidity
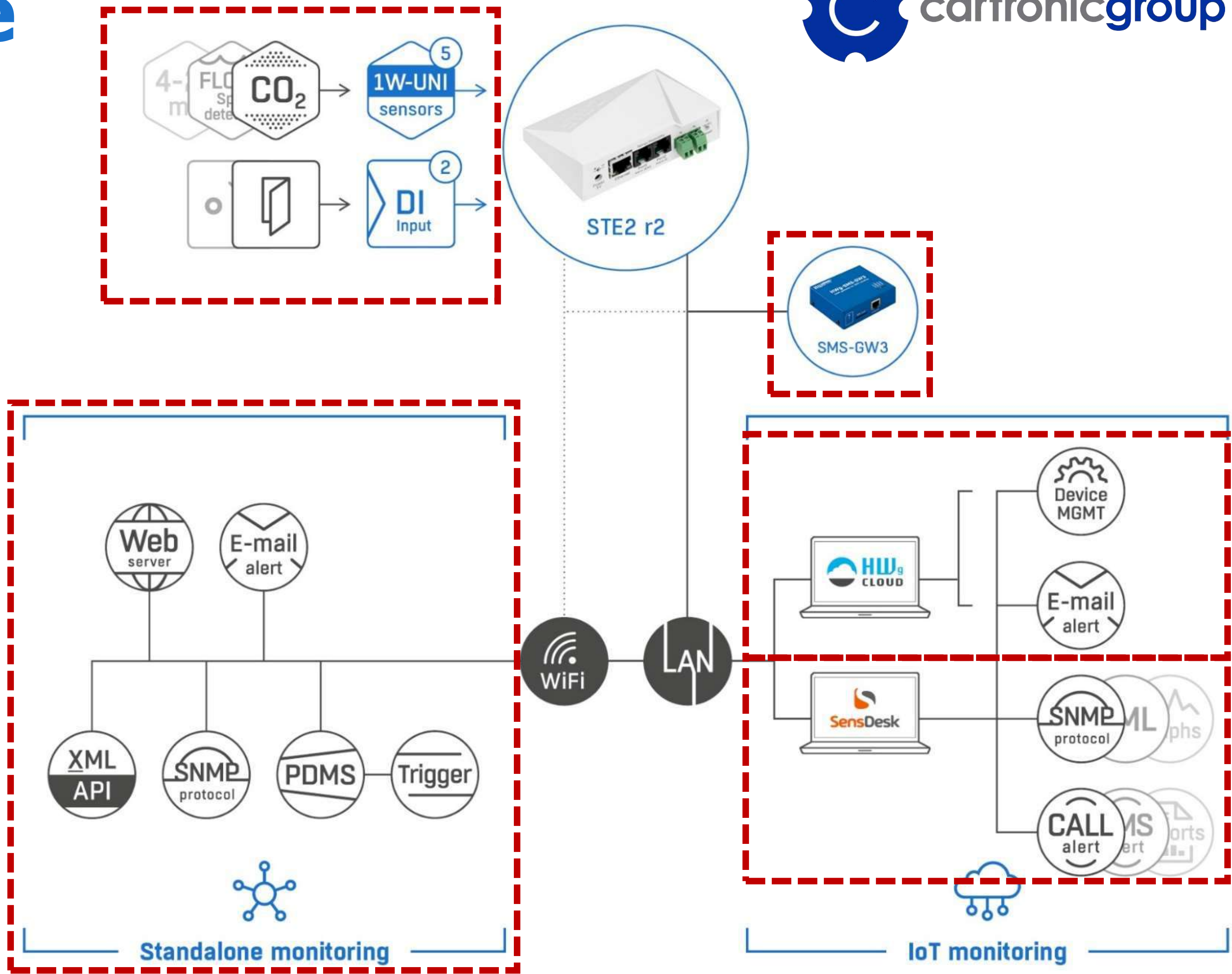
Why Remote Monitoring Eco-System (Portal)?

1) Portal is one place where, all devices are connected to.

2) Portal provide long-term reliable **Alert** (different channels).

3) Advanced alerting & Device communication failure alerts.

4) Graphs / **MultiGraphs** to remote site overview.

5) Reports in **PDF** / Energy consumption billing information.

6) Open **API** = Device or whole system (user account) can be integrated to 3rd party system (SNMP, XML, …).

7) With Mobile App you have data 24/7 available for 1 click.

8) Central **Device management** is essential feature for real projects with 10+ remote installed devices.

Technology room / medical

Remote monitoring of small technology room (with one 19" rack cabinet) & early warning if troubles coming soon is STE2 essential business.

- Alerts by email

- Alerts by SMS & Voice calls (SMS GW / Portal)

- Alarm reminder when the critical situation persists.

- PoE power or WiFi connectivity as the option

- Various temperature sensors:
  - Flat cable (installation in the fridge door seal)
  - Deep freezers -80°C temperature monitoring
  - Outdoor IP68 sensors

Reliable product: Install now, do not touch for 3 years. Be really informed when value is critical.
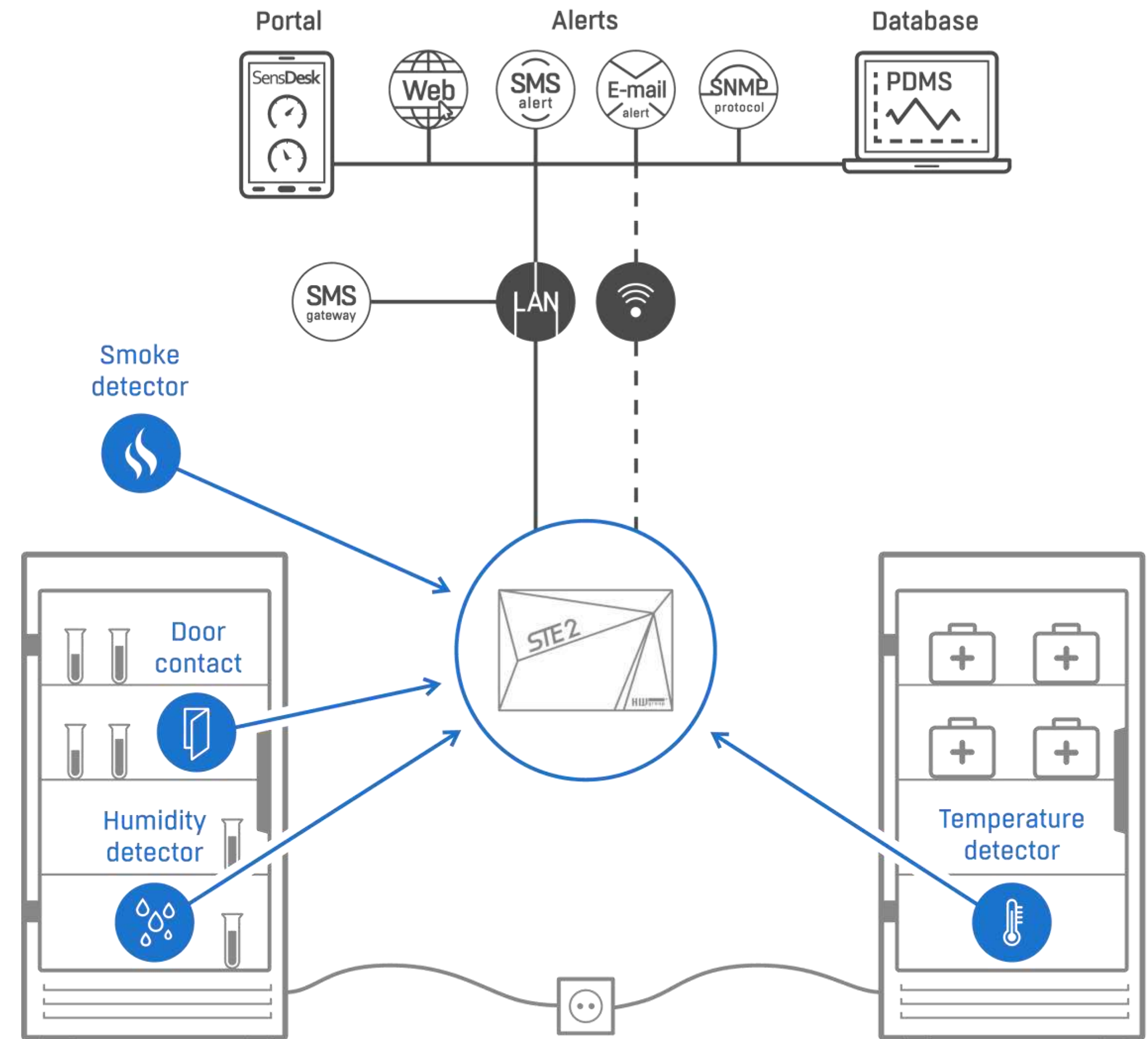
WAREHOUSES

Remote temperature monitoring from several sensors with STE2 or SD-xxx devices.

- Temperature / Rel. Humidity

- Door contacts

- Smoke detector

- Fire detector

- AC monitoring
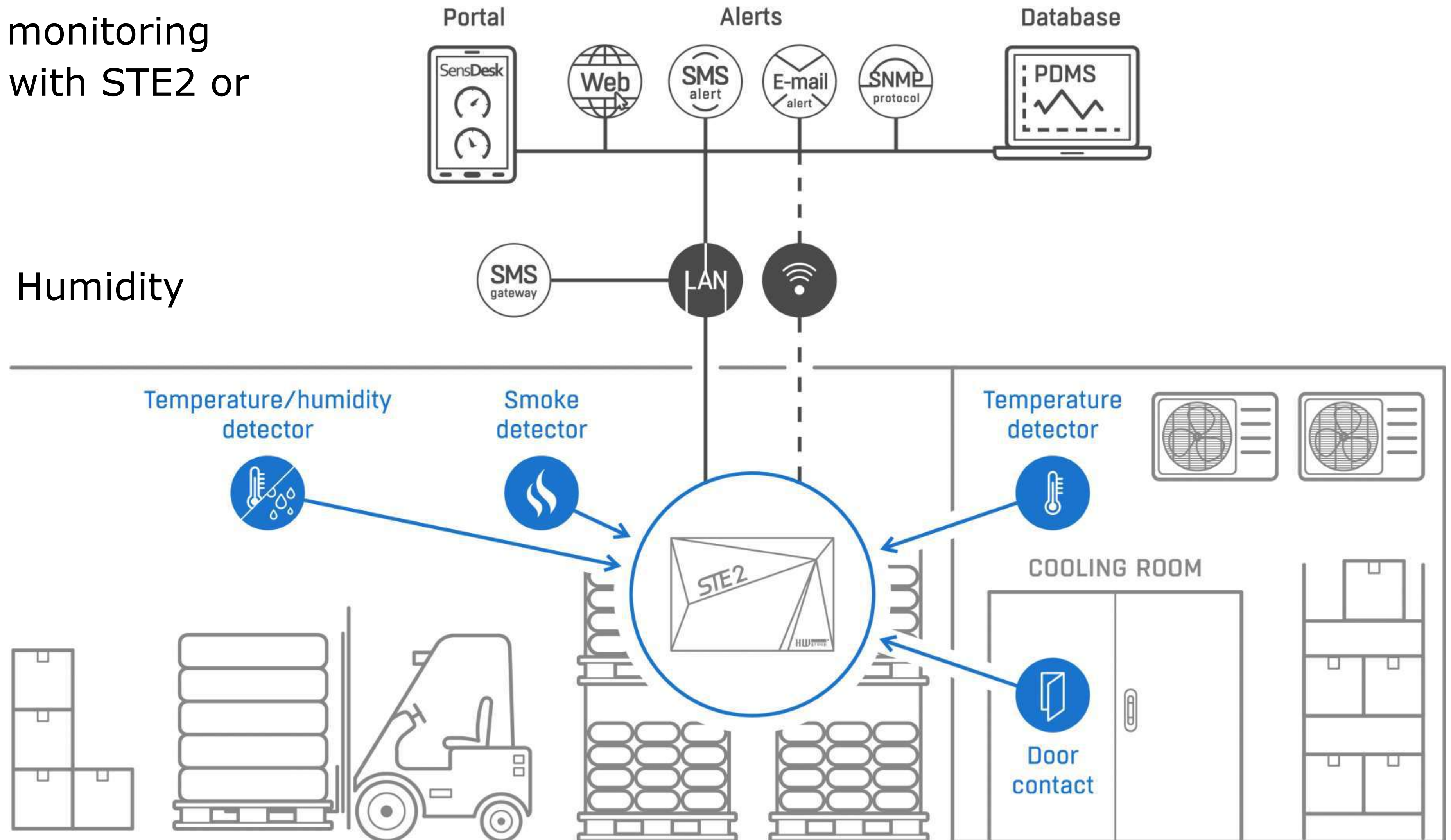
Water Leak Detection system

1) Detects a few drops of water along the entire length of the WLD sensing cable.

2) Reliable detection WLD cable, you can prolong (non-sensitive parts), Bend, Twist or Grip without any false alarms.

3) Several independent WLD zones (WLD2)

4) LAN / WiFi / NB-IoT connectivity options

5) Portal is just an option

Bend   *Twist*   *Grip*

185 m

Terminator | WLD sensing cable A | Prolong non-sensing cable | WLD sensing cable A | Connection cable

WLD2
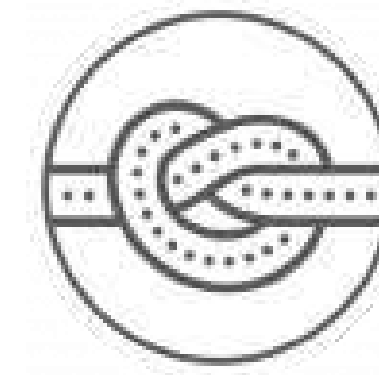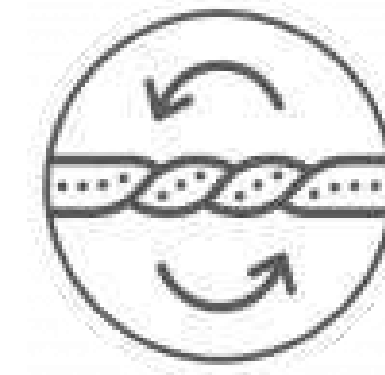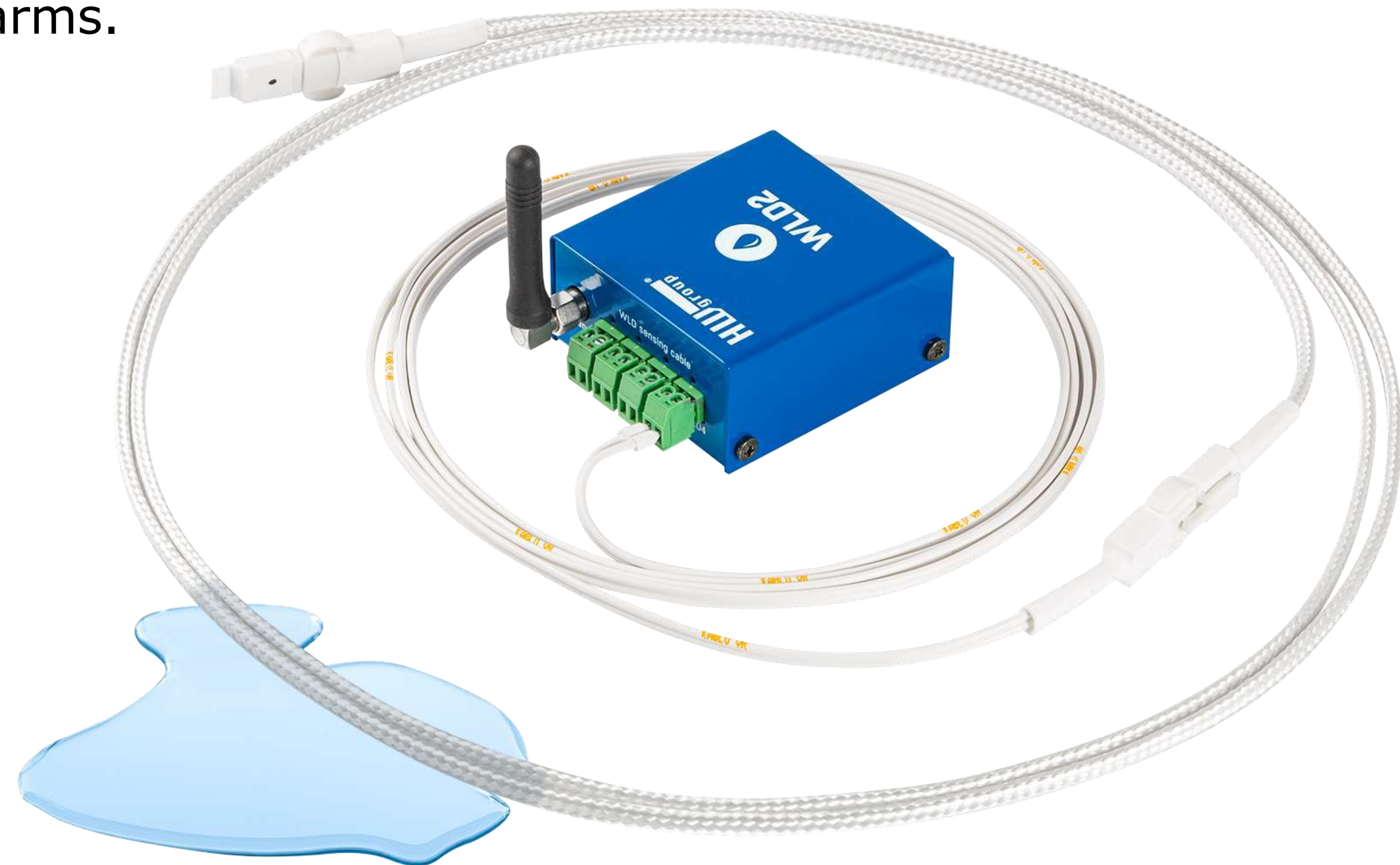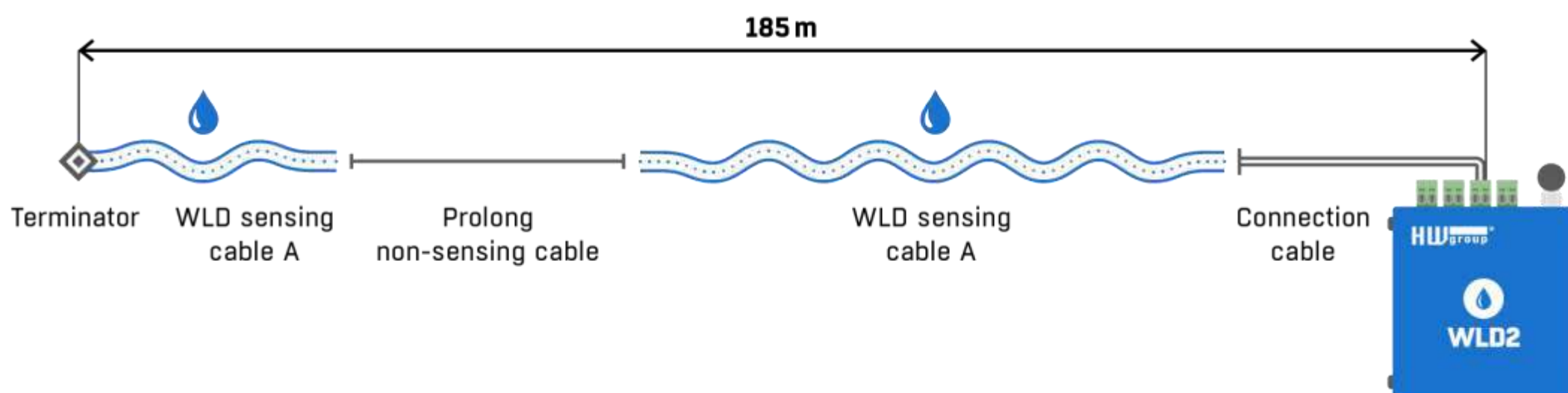
Poseidon2 & Damocles2 devices

Professional products **for LAN projects**:

1) Damocles2 = LAN devices with **I/O** (Digital Inputs / Digital (relay) Outputs

2) Poseidon2 = LAN devices **Sensors + I/O**

3) Portal is just as an option

Poseidon2: Industrial projects

1) Full ecosystem of **Sensors & Detectors**
   1W-UNI, RS-485, Analog Input

2) Secure and compatible (HTTPS)

3) Several Poseidon2 devices

4) Portal as **an option**:
   - **Standalone** (SNMP, Modbus/TCP, …)
   - **IoT Monitoring** (SensDesk Technology)

5) Simple topology and wiring

6) Low integration costs

7) Remote management of devices
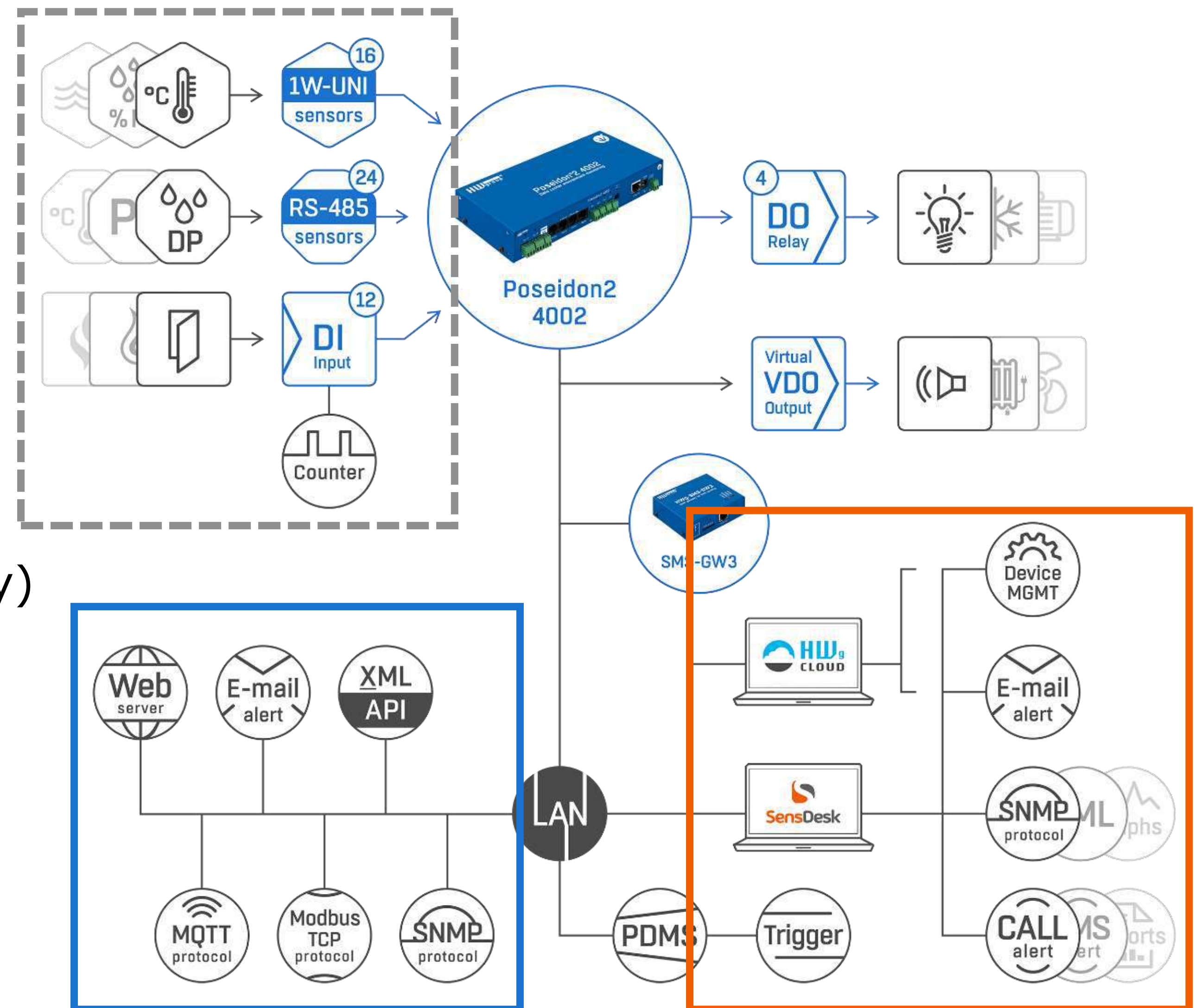
DATACENTERS

Critical infrastructure and long term reliability = scalable cable based industrial monitoring system.

- Temperatures / Rel. Humidity

- Air Flow structure

- Water Leak Detection

- Door contacts

- Smoke detector

- Fire detector
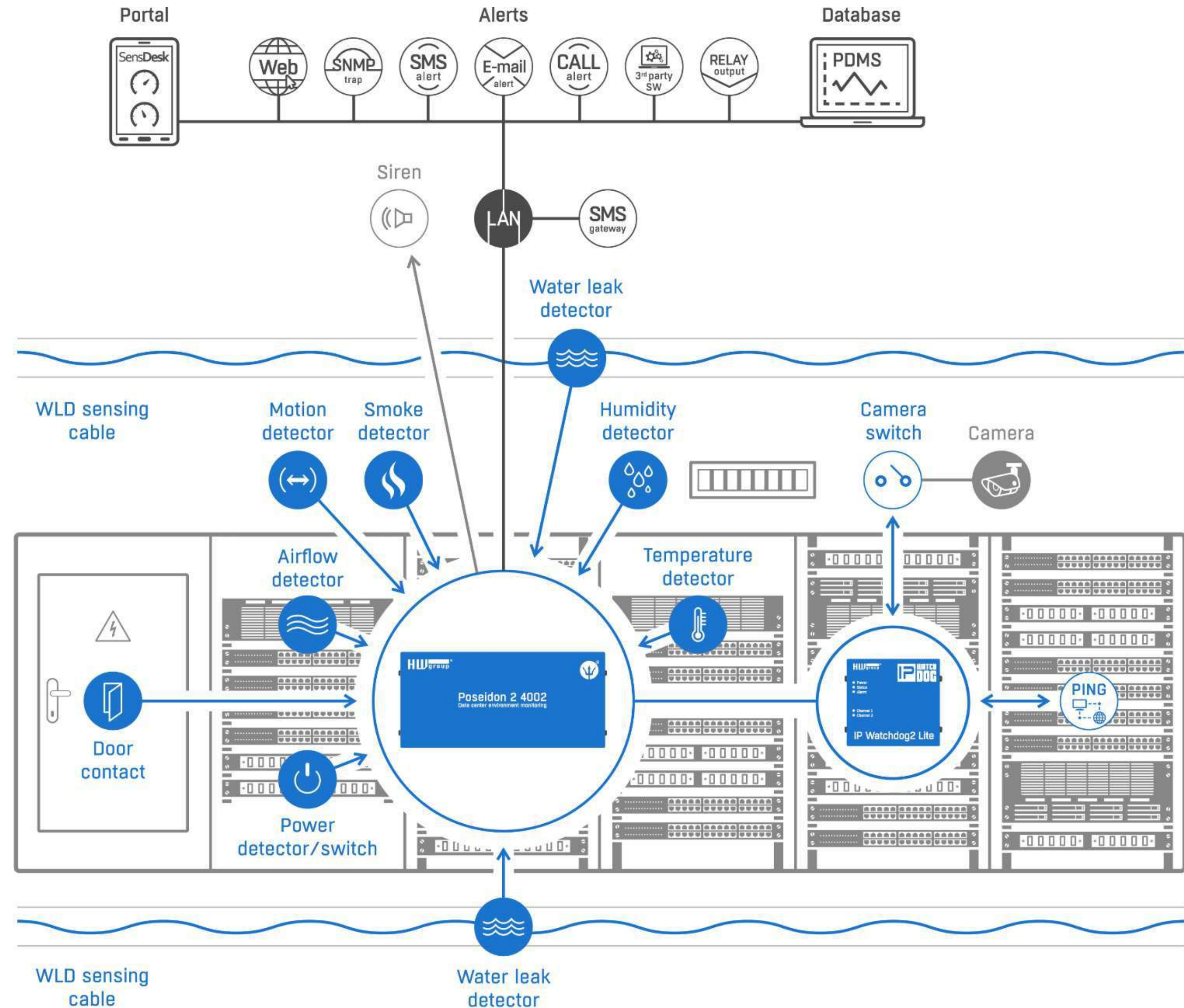
- AC monitoring

Remote monitoring project design

1) What do you **need to monitor**?
- Sensors (from HWg)
- Digital Inputs (Detectors / 3rd party)
- AI / DO / VDO

2) What's your **connectivity**?
- LAN / WiFi
- GSM / LTE
- NB/IoT

3) What should be **reaction**?
- Email / SMS / Voice Call
- Graph / Multi-graph / Report

- Kind of business:
  a) Monitoring of your own environment.
  b) **SI**: Project for your customer.
  c) **SP**: you will sell it as a service in time.

- Which sensors and ranges do we need?

- What is the topology of measurement points?

- How are the sensors and devices mounted?

- What alert timing is required?

- How do you want to visualize the data?

- Mobile App?

INDUSTRY AND MANUFACTURING

Long range sensor cabling requires RS-485 bus.
Poseidon2 4002 is used.

- A lot of Temperatures & Relative Humidity sensors

- I/O points

- Water Leak Detection

- Door contacts

- Power monitoring

- Mix of cost effective / long distance sensors
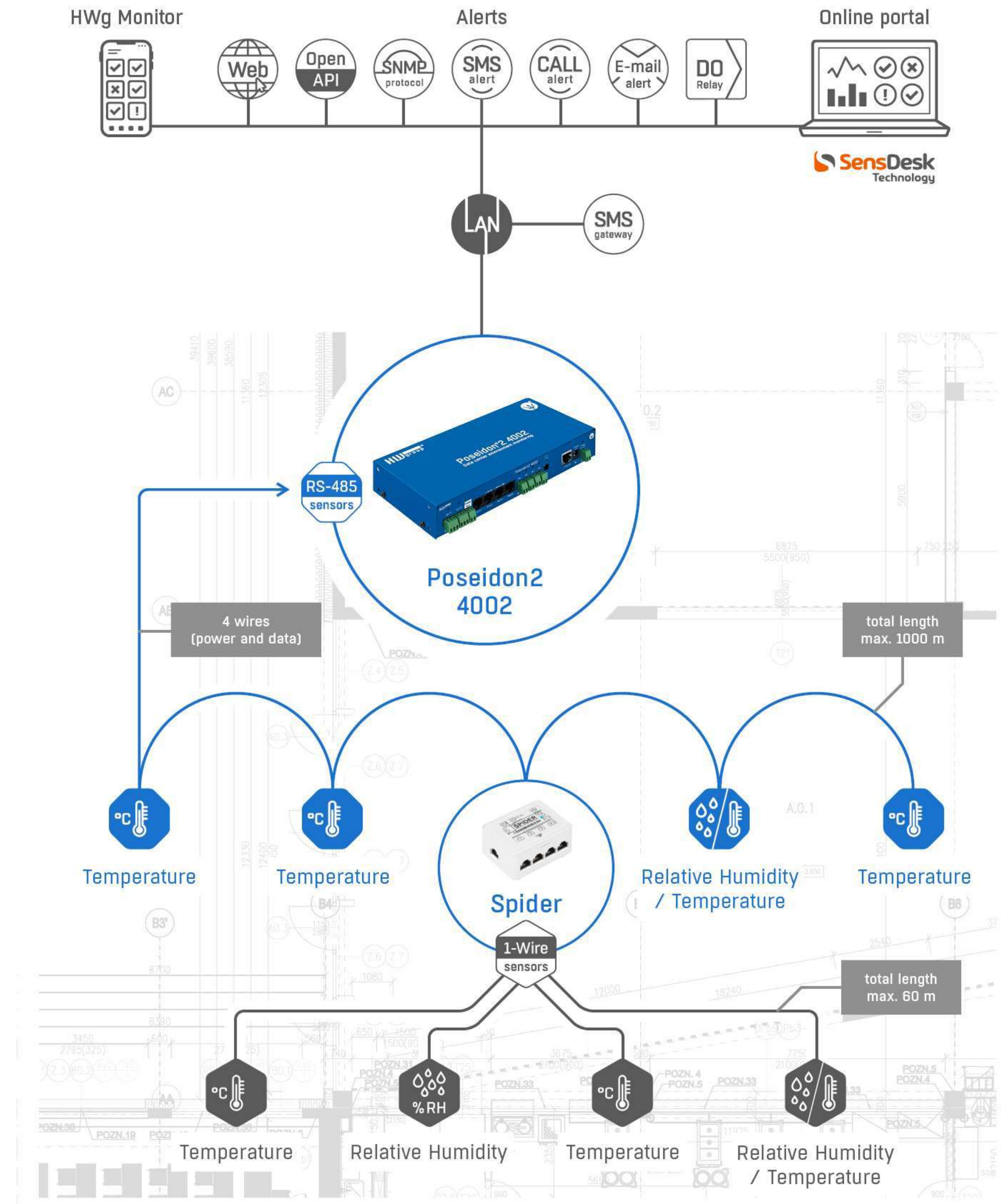
Ares: GSM/LTE projects

Portal is just as an option
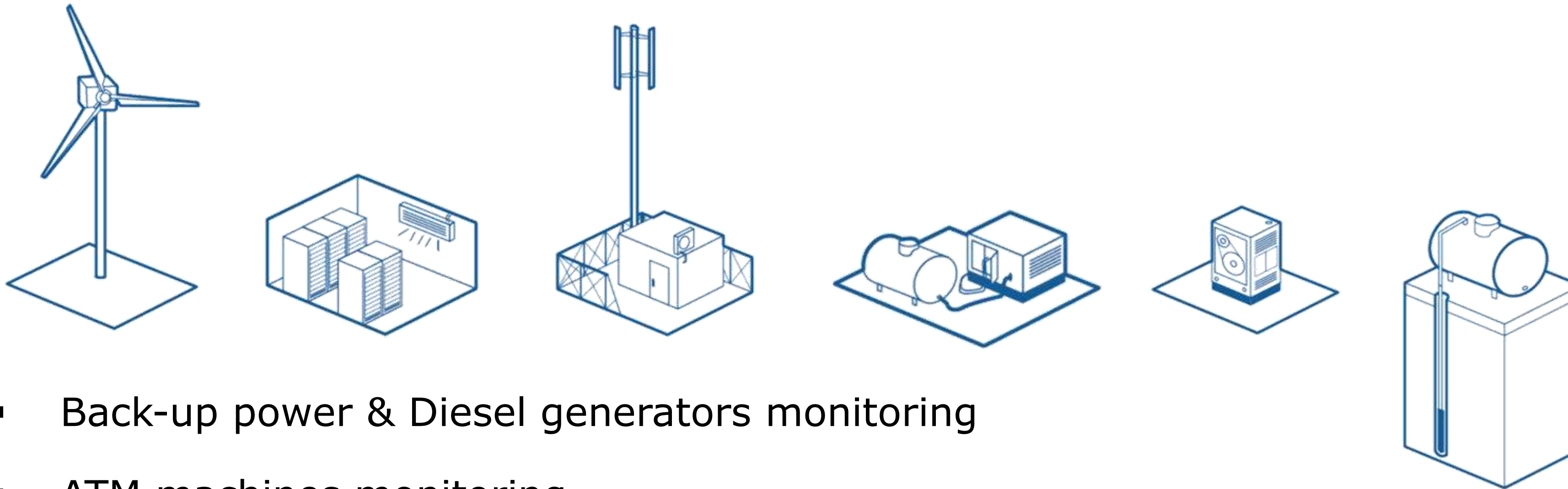
- Back-up power & Diesel generators monitoring

- ATM machines monitoring

- Technology along roads, highways, or railroad tracks

- Food / medical storage & transport

- Electricity distribution networks (transformers, power-lines)

- Water source & technical equipment status monitoring

Ares: GSM/ LTE monitoring

1) Internal battery for up to 24 hours

2) Local setup: USB

3) Remote setup: Any SensDesk portal

4) Up to 14 external Sensor values

5) Sensors powered from internal battery

6) 2x DI (Digital Input) with S0 counters

7) Alerting to local power failure

8) Customer is buying his own SIM card

9) Portal is just an option
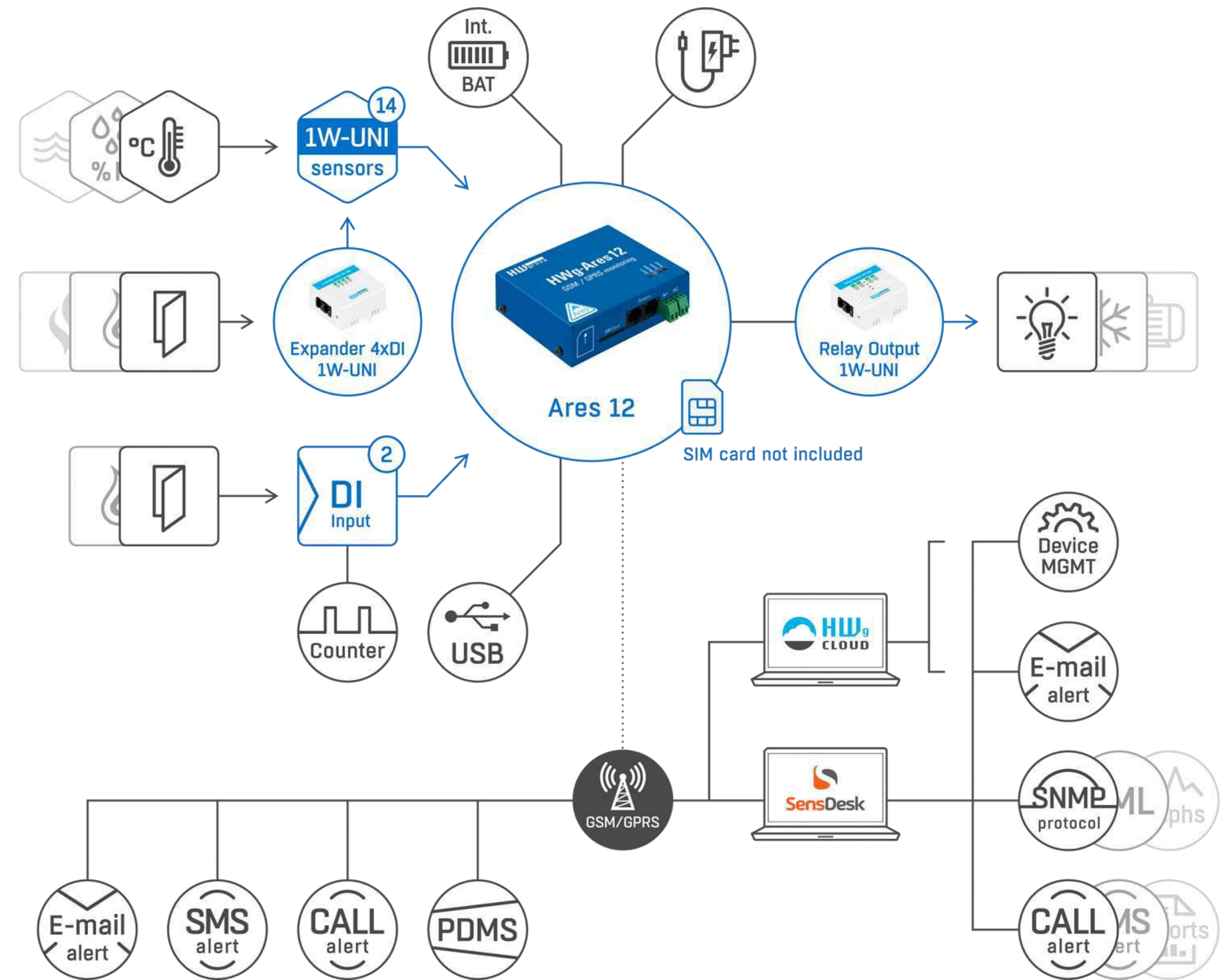
AGRICULTURE

No LAN cable connectivity available = GPRS, LTE or NB-IoT required (Ares, NB devices).

A lot of sensors needed (temperature, humidity, light, power supply, airflow…)
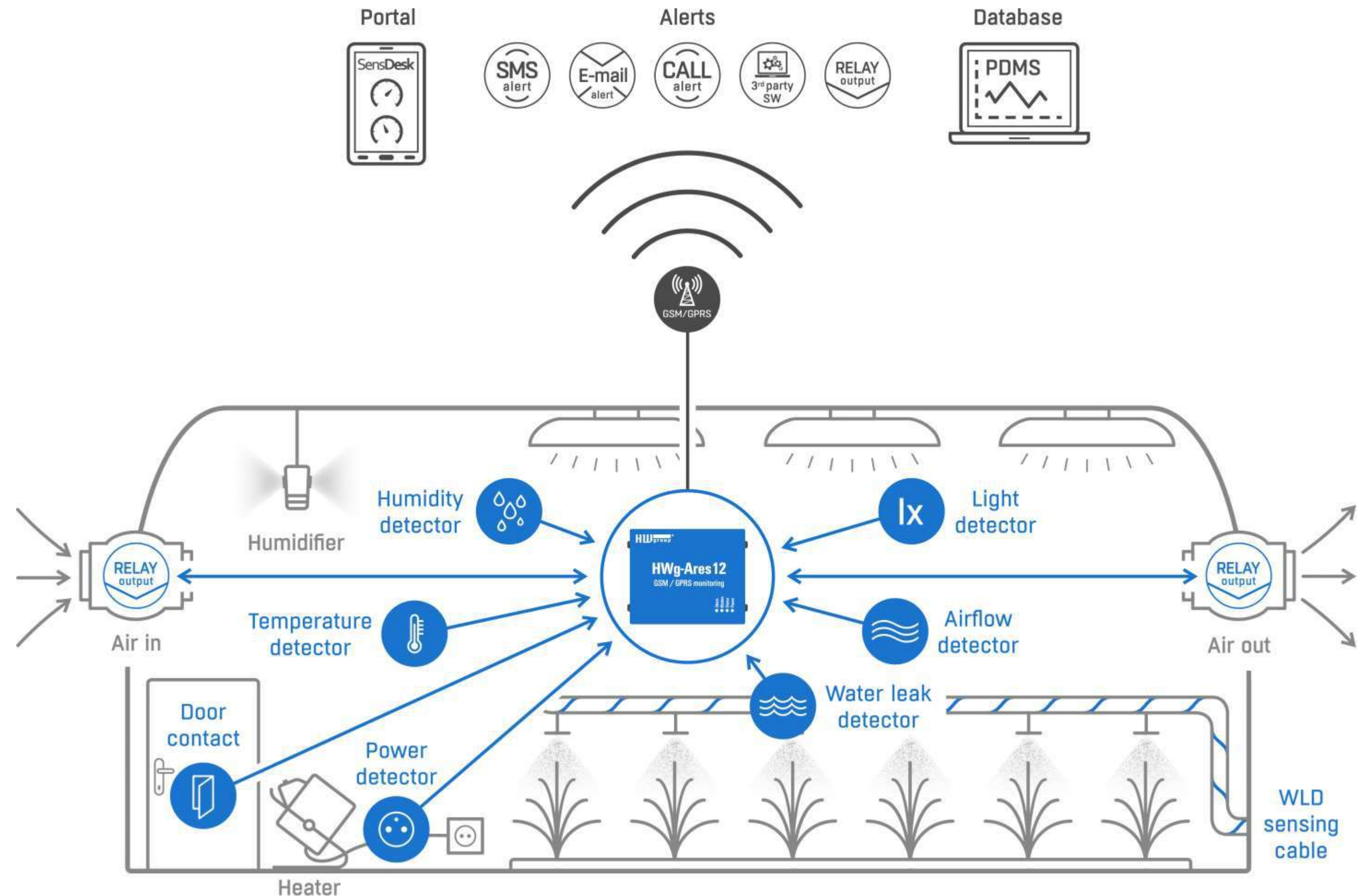
CELL PHONE TOWERS

Remote locations require LTE, GPRS or NB-IoT. Remote upgrade and management is a must.

Usually a monitoring of temperature, intrusion, smoke, UPS, power supply….
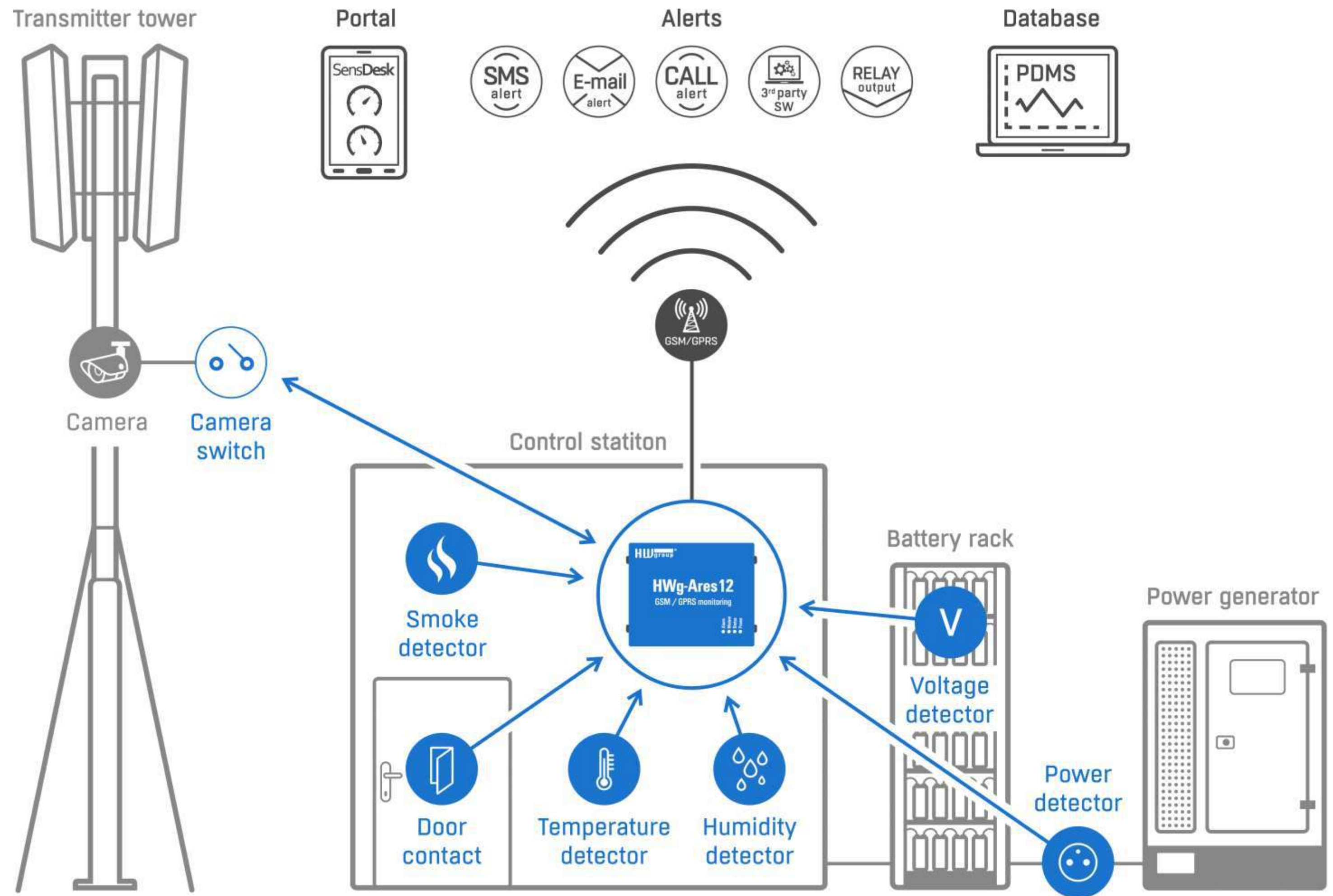
WatchDog devices to keep technology running

1) **Detection Channels**:
   Analyze 3rd party system running based on:
   - Serial port data
   - PING answer/request
   - WEB answers

2) Restarting power output

3) Unique, autonomous product

All our hardware can be connected to the Portal

SensDesk Technology

Portal option: SaaS / On Premise

Standalone Monitoring
Portal is just an option

IoT Monitoring
Portal is mandatory

Portal:

www.HWg-cloud.com

Installation portal with very basic services included.

1) **Default portal** for all HWg devices (latest FW required).

2) SI have free remote device management for installed devices.

3) Free for up to 20 devices / user account (all HW group products).

4) Simple Email alerts for 2 recipients. 10 days history, no API, no SMS, basic graphs
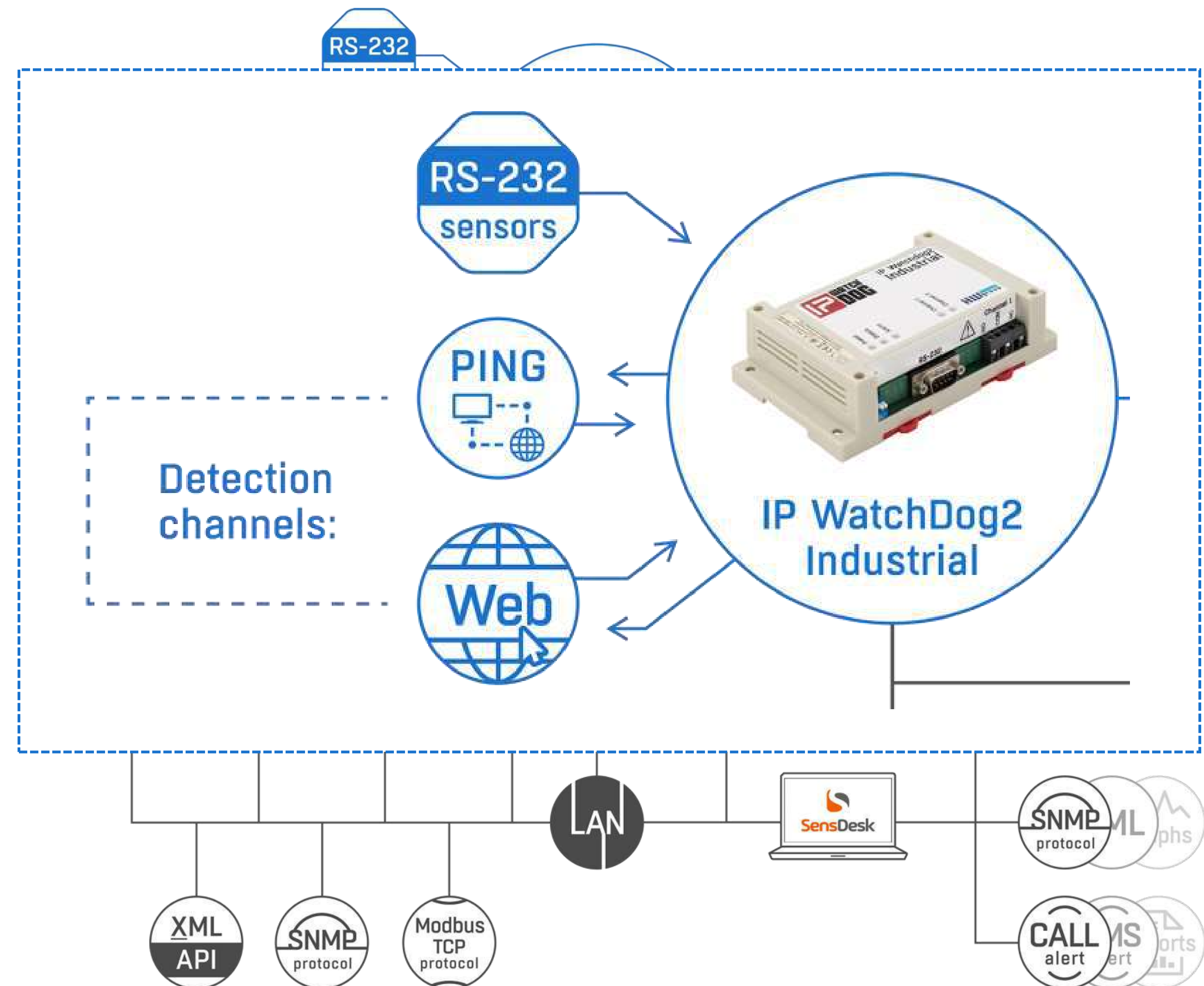
5) Devices can be migrated to any other portals.

www.SensDesk.com

1) SaaS (Software as a Service)

2) **SensDesk** is technology.

3) **SensDesk.com** is public example of this technology (by HWg).

- It's Paid option for all HWg devices.

- **3 subscription plan options** (5D /10D / 25D for 1 year).

- **Subscription plan** can be ordered for 1 year (code to activate).

4) Differences are also in service mix (how many SMSs, PDF, ...) not device limit only.

Portal providers

1) SaaS (Software as a Service)

2) **Paid service** provided by HW group partners.

3) Various mix of free / paid services.

4) Based on SensDesk technology.

- SensDesk.at

- SensDesk.mcs-nl.com

- HWportal.cz

- SensDesk.ro

- SensDesk.lv

- SensDesk.gr

- Other (list on HWg-cloud.com)

Standalone Monitoring (installation)

Customer

System integrator
100 € / h

IT technician
80 € / h

Poseidon2 / Damocles2

Door contact

Humidity detector

Temperature detector

Water leak detector

Experts? Their cost / replacement is like that..

IoT Monitoring

Customer

Delivery man
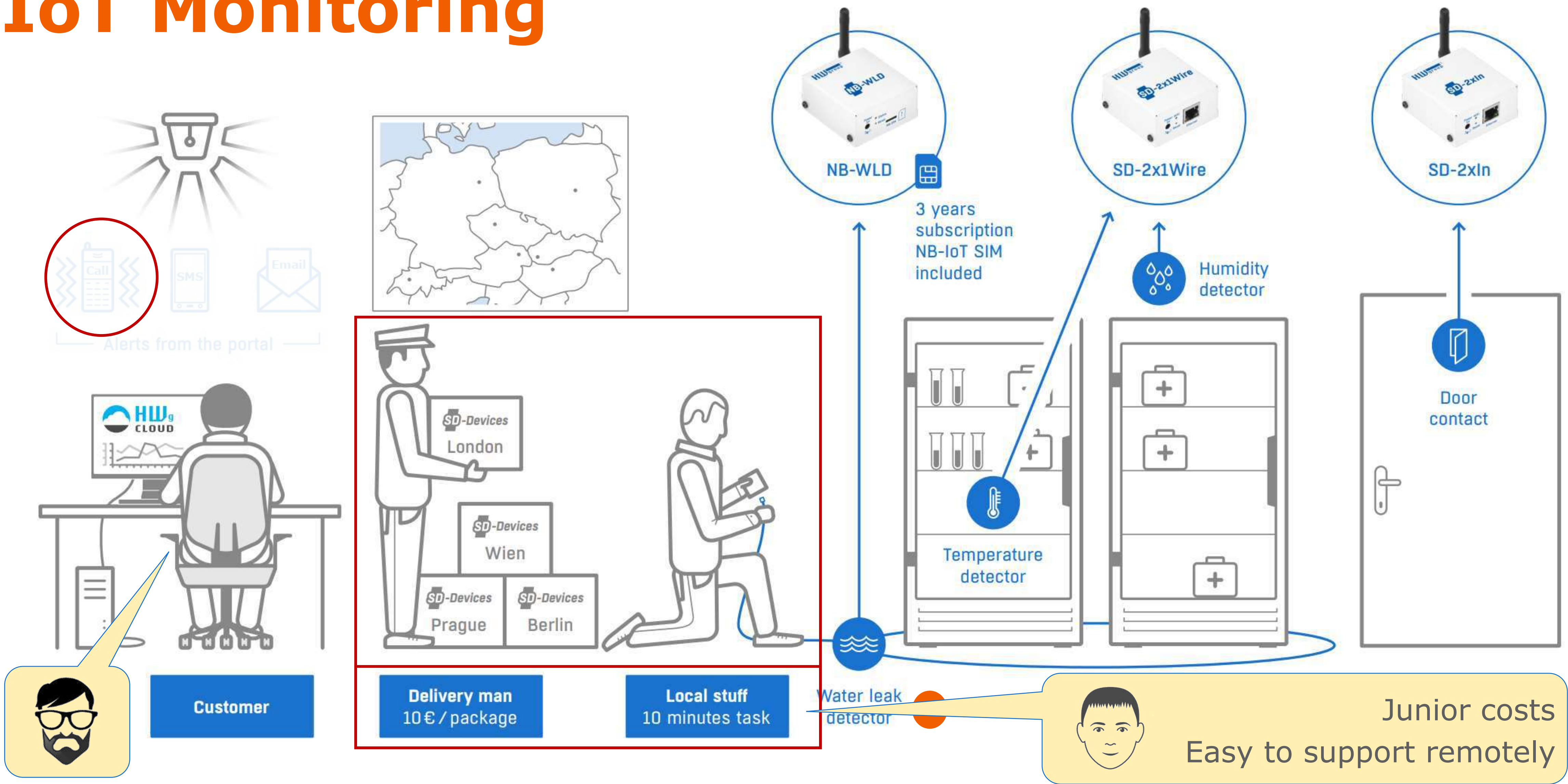10 € / package

Local stuff
10 minutes task

NB-WLD

3 years subscription NB-IoT SIM included

SD-2x1Wire

SD-2xIn

Humidity detector

Door contact

Temperature detector

Water leak detector

Junior costs
Easy to support remotely

NB-IoT (Narrow Band) devices for Portal

GSM & LTE vs NB IoT (Narrow Band)

GSM & LTE

1) GSM & LTE is similar technology (updated within time). It can share the SIM card.

2) Customer is buying SIM card by himself. (and paying data traffic).

3) It's global standards. GSM (2G) will be switched off soon in some countries.

NB-IoT (Narrow Band IoT)

1) NB-IoT network is different technology. It's also using SIM cards, but it's **another network**, can be different operator. (Vodafone CZ / Vodafone global)

2) NB-IoT SIM card is provided by service operator. Device is preconfigured for it.

SensDesk Technology

HW group®

Thanks for your attention

www.hw-group.com