

# SPIDAP



Comprehensive Solutions from  
installation to billing and more.

Our products are the premier choice for digital transformation providing sustainable solutions for efficient and conscious energy and water management.

1  
0  
0  
1  
0

Boosting energy efficiency requires a holistic strategy involving every player in the energy supply chain, from production to consumption. Although making small gains in production efficiency and cutting transmission losses matters, the real game-changer lies in empowering end-users to optimize their energy usage. That's where the magic happens!

## Reading systems

The system enables data collection through variable meter reading methods either walk-by / drive-by modes, or local stationary ISM 868 networks connected to the internet via data concentrators. It also supports stationary LoRaWAN networks covering large areas. Additionally, it can receive data point-to-point from embedded or add-on communication modules installed on measurement devices, utilizing NB-IoT or GSM communication.

1  
0  
1  
0  
0  
1

### walk-by/drive-by system

Data collection is facilitated by short-range radio modules installed on the measurement devices, covering specific reading routes in dense or rural areas. This method not only removes the need for manual meter checks, but also eliminates human errors, with data securely transmitted from the field metering agent to the system administrator.

0  
1  
0  
1  
0

### Stationary ISM 868 MHz system

The data collection is facilitated by short-range radio modules mounted on the measurement devices, following a designated route determined by the location of transmitters and a sending concentrator, which transmits the data to telemetry servers. This method of reading is particularly effective in densely populated areas.

0  
1  
0

### LoRaWAN system

The data collection is carried out through long-range radio modules. Readings are captured by "gateway" base stations and then transmitted to the operator, who stores the reading data in the cloud with unrestricted access for the client.

0  
1  
0

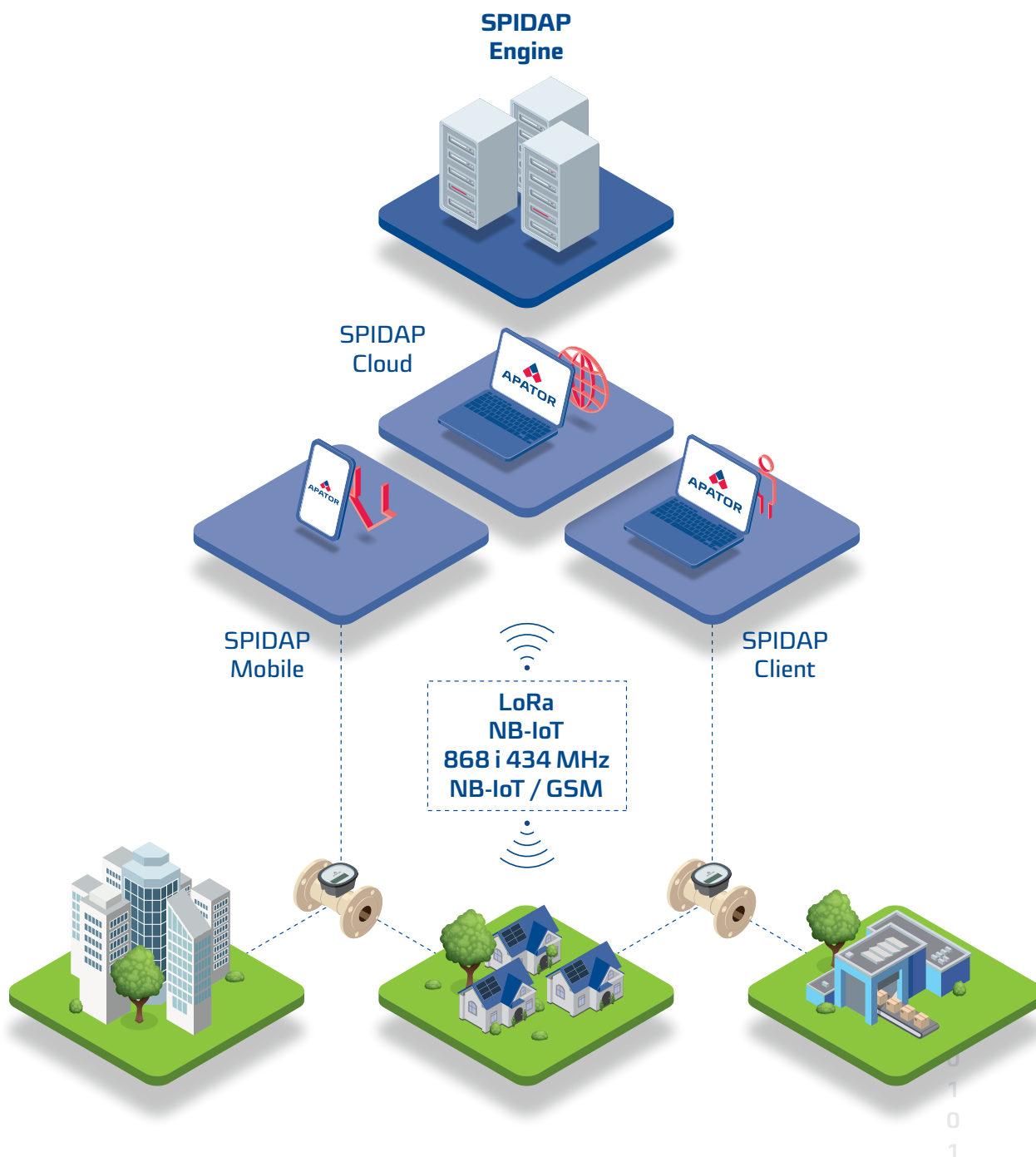
### NB-IoT / GSM system

Point-to-point (P2P) reading is facilitated by a communication module's collaboration with a wide range of residential, household and industrial water meters. Reading accuracy is ensured through the utilization of the evolving infrastructure provided by cellular network operators. This method is commonly used when monitoring device and network operation is necessary. Alarms are signaled immediately upon their occurrence.

1 0  
0 1  
0 0  
1 0 0  
0 0 0  
0 1 0  
1 0 1  
0 1 0  
1 0 0  
0 0 1  
1 1 0 1  
0 0 1 0

## SPIDAP system structure

The SPIDAP system is divided into several modules that cooperate with each other:



It is possible to integrate the SPIDAP system with measurement and communication devices from other manufacturers. Details at Apator Powogaz sales representatives.

0 0  
1 1 0  
1 0 0 0  
0 0 1 1  
1 0 1 1 0  
0 1 0 1  
0 0 0  
1 1 1

The SPIDAP software offers a full package of tools and compatible modules designed for the administrator to manage the replacement of measuring devices, radio readings and users. The main software modules are:



### SPIDAP Engine

Server enabling distributors to manage licences for Apator Powogaz products and assigning an assortment to given clients, so that they have access to purchased devices (e.g. NFC communication with Ultrimis via SPIDAP Mobile)

### SPIDAP Cloud

Web-based platform for downloading reading data (in a stationary and remote system), its further analysis and presentation.



### SPIDAP Mobile

Mobile application for walk-by/drive-by readings, allows the configuration of the reading devices to be checked and their installation and servicing to be performed.

## SPIDAP



### SPIDAP Client

Online platform allowing individual end clients to check the consumption of utilities metered by Apator Powogaz devices.

## SPIDAP Engine



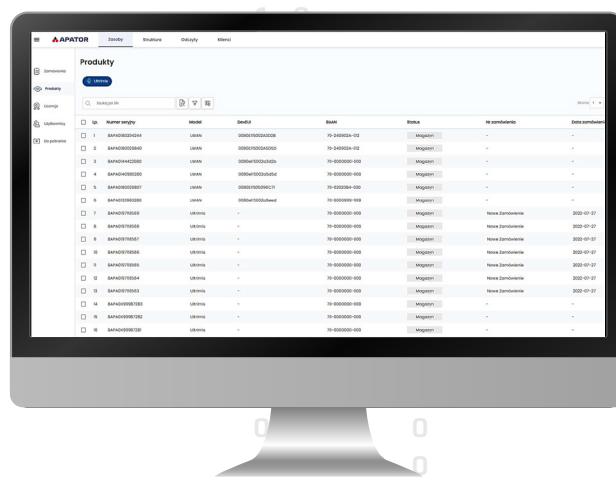
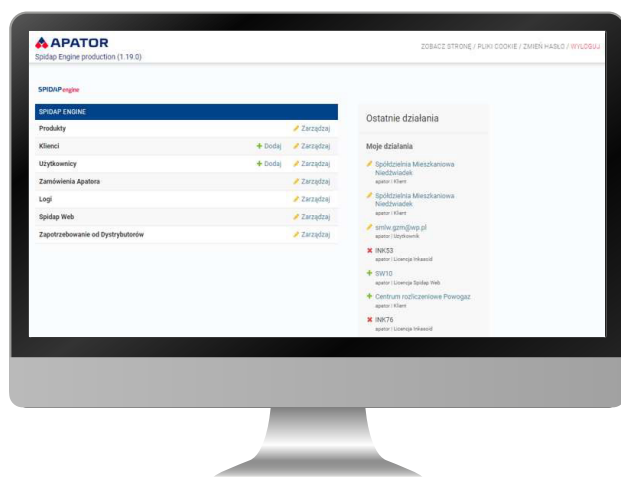
The SPIDAP Engine is a platform through which administrators can allocate software licenses and manage them effectively. The versatility of the system allows for significant customization of individual licenses, enabling easy and user-friendly personalization for each client.

The SPIDAP Engine includes user account management functions, such as user registration, password resetting and account blocking. SPIDAP Engine serves as a tool for clients to retrieve AES keys for devices. Due to GDPR regulations, cryptographic keys are not provided in the form of files sent via email. The keys are available on the client portal at <https://spidap-engine.powogaz.info/>.

Clients can download the keys to a file or transfer them to the client's database in the SPIDAP Cloud system. This ensures the security of communication modules against unauthorized access by other entities operating in the remote reading industry.

### Obtaining AES keys for devices by customers

- Due to GDPR regulations, we do not provide encryption keys in the form of files sent via email.
- The keys are available on the customer portal <https://spidap-engine.powogaz.info/>
- The customer should have an account with authorized user access.
- The customer should have an assigned Baan number for automatic key addition to their account after meter delivery.
- If the customer has access to the account but necessary keys are not found, they should contact technical support and the keys will be assigned to the customer's account.



## SPIDAP Cloud



SPIDAP Cloud is designed primarily to gather reading data from measurement devices, process it and make it available for further use. It serves as a unified platform for collecting measurement data from both stationary system networks and walk-by/drive-by systems.

### "The cloud-based system – future proof"

Right now, metering devices are used almost exclusively for billing and calculating energy costs. The intelligent SPIDAP Cloud system for utility meters is changing this situation. It contains cutting-edge tools that open a dialogue between consumers and suppliers.

The goal of SPIDAP Cloud system is to connect numerous measurement and control devices into "smart" networks that are automatically supervised. In practice, these networks comprise vast quantities of devices linked to a common infrastructure, transmitting substantial volumes of data, receiving commands and executing actions. Monitoring and managing these devices rely on automated predictive maintenance algorithms. Developing such solutions necessitates real-time analysis of large amounts of unstructured data, leveraging cloud services for communication, data processing and storage, as well as supporting mobile solutions.

Another aspect of utilizing the SPIDAP Cloud system involves creating a new model of collaboration and value creation chain, expanded to include business partners and customers.

The "Connected Enterprise" concept entails collaboration between suppliers and customers, all with the aim of cost reduction, efficiency enhancement and flexibility improvement through effective management and planning.



1 1  
0 0  
1 1 0  
1 0 0 0  
0 0 1 1  
1 0  
0 1 0 1  
0 0  
1 1  
0  
1

## All-in-One Hub

The SPIDAP Cloud system is implemented in the SaaS model (System as a Service) – a ready-made suite of applications tailored to the user's needs, eliminating the need to purchase hardware or install software. Users access the interface through a web browser.

The SPIDAP Cloud system features a modular design, allowing for standard interfaces, compliant with EN 13757 OMS and custom interfaces for measuring and controlling devices. Its open architecture enables seamless integration of various additional services, facilitating the technical outfitting of buildings in line with specific requirements and preferences.



### Control center



The system allows for precise monitoring and control of meter readings, legalization deadlines for devices installed in residential premises, as well as readings from main water and heat meters provided by the local utility. Apator Powogaz measurement devices are structurally designed to attach radio add-on modules without compromising their legalization characteristics.

### Actual Settlements



Automatic acquisition of reading data enables billing for utilities based on actual consumption rather than estimated calculations.

### Cybersecurity



SaaS service - one instance of SPIDAP serves multiple clients while ensuring the highest security standards.

### Time and cost savings



Clients no longer need to invest in:

- computer hardware,
- employee training for system operation,
- system security and updates,
- backup execution and functionality updates,
- maintaining a climate-controlled server room,
- fire or theft insurance and protection.

The SPIDAP system allows logging in from any device, at a convenient time and fully utilizing its functionality, immediately upon their occurrence.

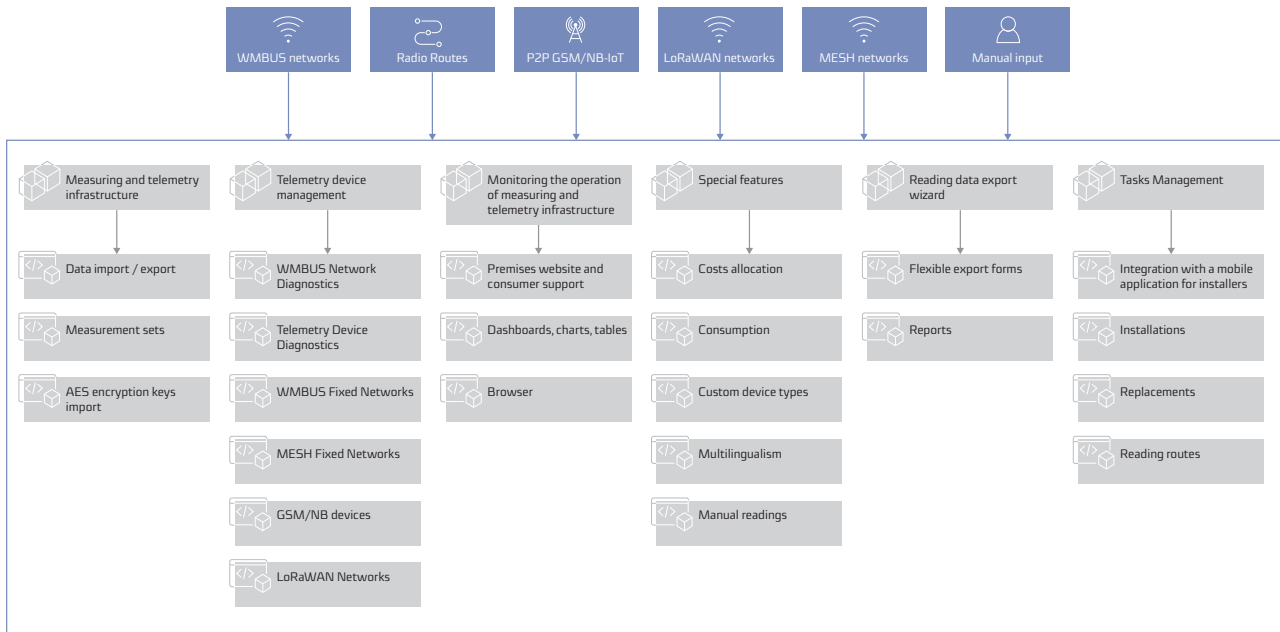
### Versatility



The client doesn't have to plan the system's size; They can start with a small structure that can be enriched with additional functionalities. They can also revert to licenses at any convenient time.

## The main task of the SPIDAP Cloud platform includes

- Collecting and storing data: readings, diagnostics and events.
- Managing reading schedules for the transmission network.
- Presenting & processing the collected data.
- Flexible data export to external billing systems used by our clients.
- Creating a measurement structure enabling the creation of reading routes for previously installed devices.
- Creating reading routes for field metering agents and transmitting the collected data through the cloud.
- Archiving data in one central location.



### Measurement sets

A measurement set establishes a connection between measuring devices and telemetry devices situated at a specific location. This system exclusively gathers and processes data from devices incorporated within the measurement set. Measurement sets can be created using the user interface's wizard or via a designated import tool. Through a unified process, users can add both measuring and telemetry devices along with the installation location of the measurement set. After specifying the installation date, the set is prepared for operation.

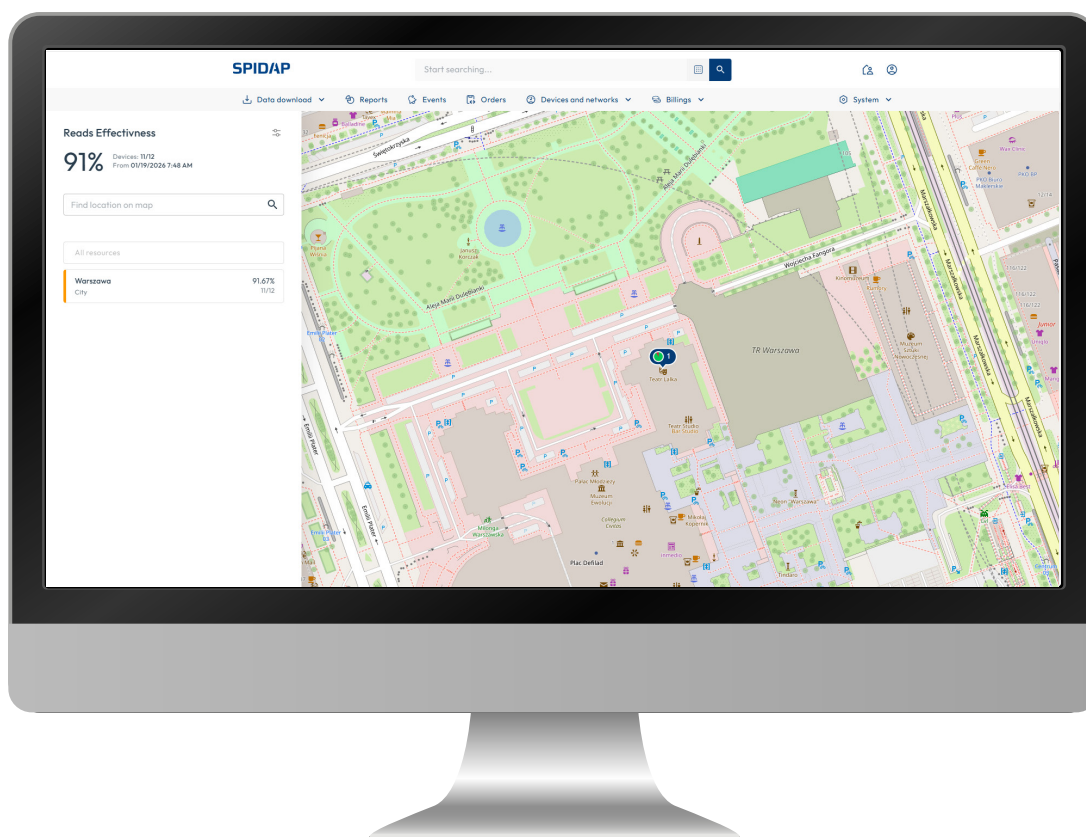
The quantity of devices within a measurement set is unrestricted. Typically, a measurement set comprises a pair: a measuring device and a telemetry device. However, a measurement set may also be represented by a single device (e.g., a heating cost allocator, a water meter featuring an integrated telemetry module).

### Device Replacement

Sometimes something breaks, someone damages a device, or the device's legalization period expires. By using the replacement wizard in the user interface, you can quickly replace both measuring and telemetry devices. Each device replacement automatically deactivates the existing measurement set and creates a new one. If you are replacing a metering device that is read by the stationary network, the old device will be automatically removed from it and replaced with a new one.

## Map view & diagnostics dashboards

The map displays the reading effectiveness in all locations. Depending on the map's zoom level, you'll find reading effectiveness for towns, streets and buildings. By default, you'll see all measurement sets on the map, both those with readings and those without for the specified period. Using filters located in the left panel, you can narrow down the range of displayed data. If you enable showing only measurement sets without readings, you'll quickly assess whether the measurement-telemetry infrastructure is functioning correctly. As you can see, the map is a valuable tool for verifying the proper operation of the system.

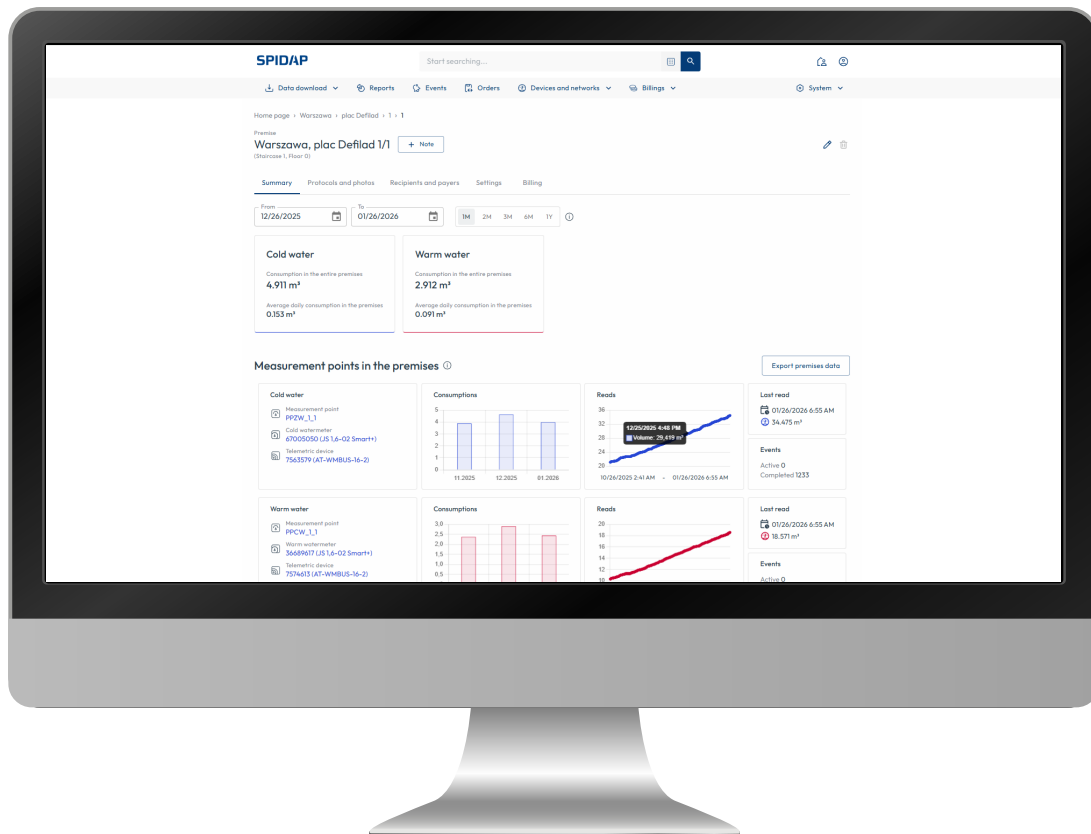


Popular solutions relied on tabular data presentation. Upon logging in, SPIDAP Cloud immediately presents a map with markers indicating monitored objects, providing a comprehensive overview of the current situation. The visualization of system operations on the map using colored markers, facilitates the efficient filtering of substantial data volumes. The system supports the loading of GIS layers (GML/SHP) at any operational stage, enhancing the displayed information, such as supply network processes. Graphical representation enables rapid identification of whether detected events are isolated or if similar alarms occur in nearby objects, potentially signaling network failures, rather than faults at specific measurement points.



## Meter readings - address list & reports

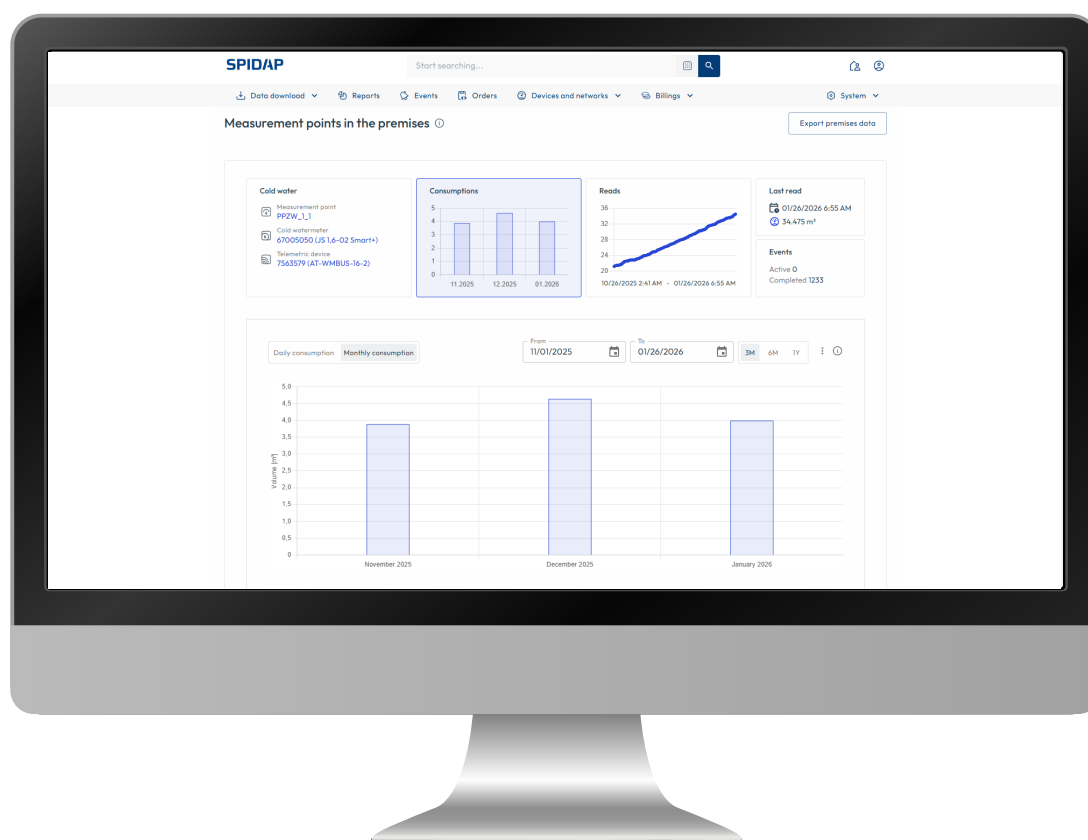
SPIDAP Cloud offers remote and automatic meter reading for all meter types. Data can be collected even once every hour in a synchronized manner to align with full hours, facilitating comprehensive analysis, statistical processing and implementation of the Notification & Events. Meter readings are organized and linked to functions within the respective addresses of objects, simplifying the preparation and export of reports for further analysis or billing and invoicing purposes. Reports can be customized to meet specific customer needs and exported in file formats compatible with billing and invoicing systems.



- The use of the standard communication protocol UNE EN 13757-4:2021 ensures seamless operation of measuring devices from various manufacturers.
- Remote reading significantly reduces the time and costs associated with obtaining readings compared to manual methods.
- Synchronized and frequent readings provide valuable data for network analysis, precise balancing and media consumption billing.
- Providing data to recipients encourages them to take pro-environmental efforts.
- The system is adaptable to any building and can be expanded with new devices at any time.
- Early detection of failures helps minimize associated costs.

## Meter readings - consumption

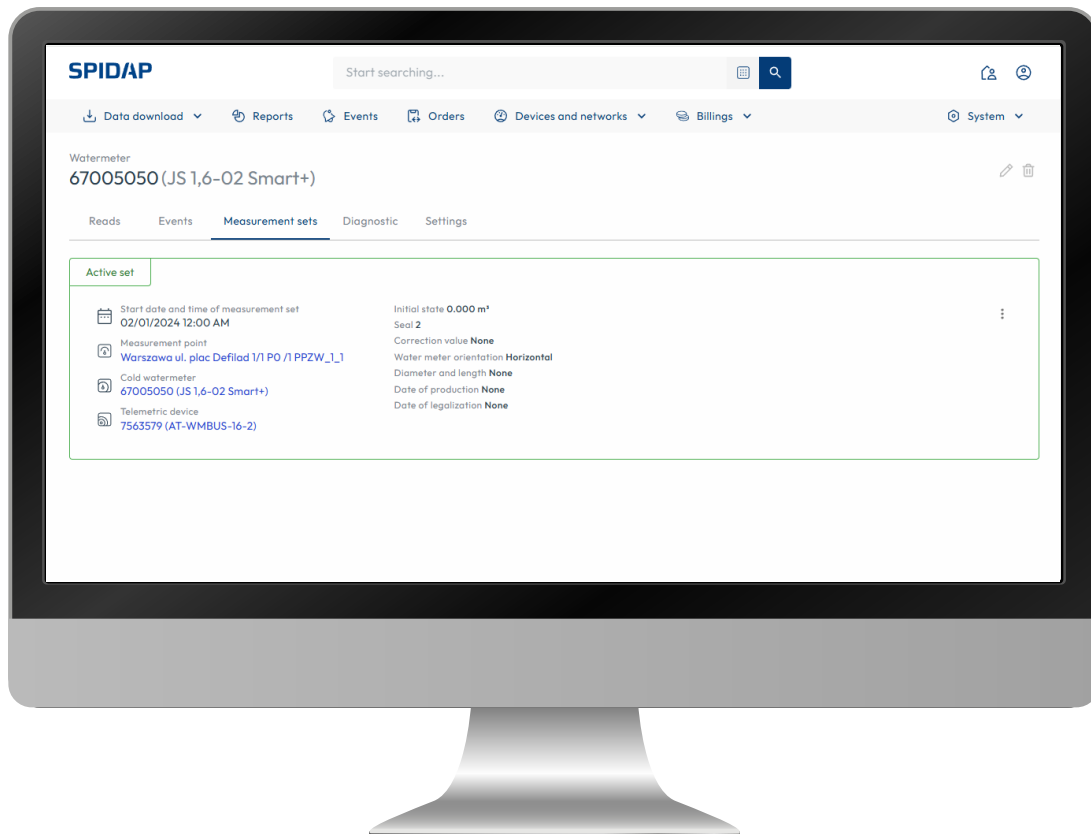
The SPIDAP Cloud user interface presents data while precisely maintaining a structure that accurately reflects the real-world situation. Navigating through the system mirrors real-world behavior. Firstly, users specify the street and then locate the building of interest. The building interface displays the total consumption aggregated from sub-meters, grouped according to their functions and compares it with the readings of main meters, allowing for immediate assessment of the system's balance. Below on the screen, users can see a list of premises and the number of reading devices in each premise, along with their individual states. Data retrieved from measuring devices provides information on meter readings at specific times. The system processes this information to indicate the consumption of the measured quantity over a specified period, usually daily or monthly. When readings are collected hourly, such gradation is also presented in tables and charts. All presented data can be downloaded in graphic files or CSV format.



- Time-saving and user-friendly interface.
- Accurate parameters delineating the extent of authority.
- Security of sensitive data.
- Capability to modify the scope of authority within a specific role, such as adjusting options available to users with a single click, eliminating the need for individual updates.
- Revoking role authority does not erase user history.

## Detailed technical data of measuring & communication devices

The user-friendly interface contains tiles whose expansion allows access to details. Devices can vary widely in their functions, specifications and technical details. The data is grouped accordingly for the measuring device and communication device separately. Additionally, registration data regarding the installation method, production and certification date are stored and presented. All this information can be utilized as components of reports or data filtering.



The software enables the categorization of meters using an identification code.

Categories for classification include:

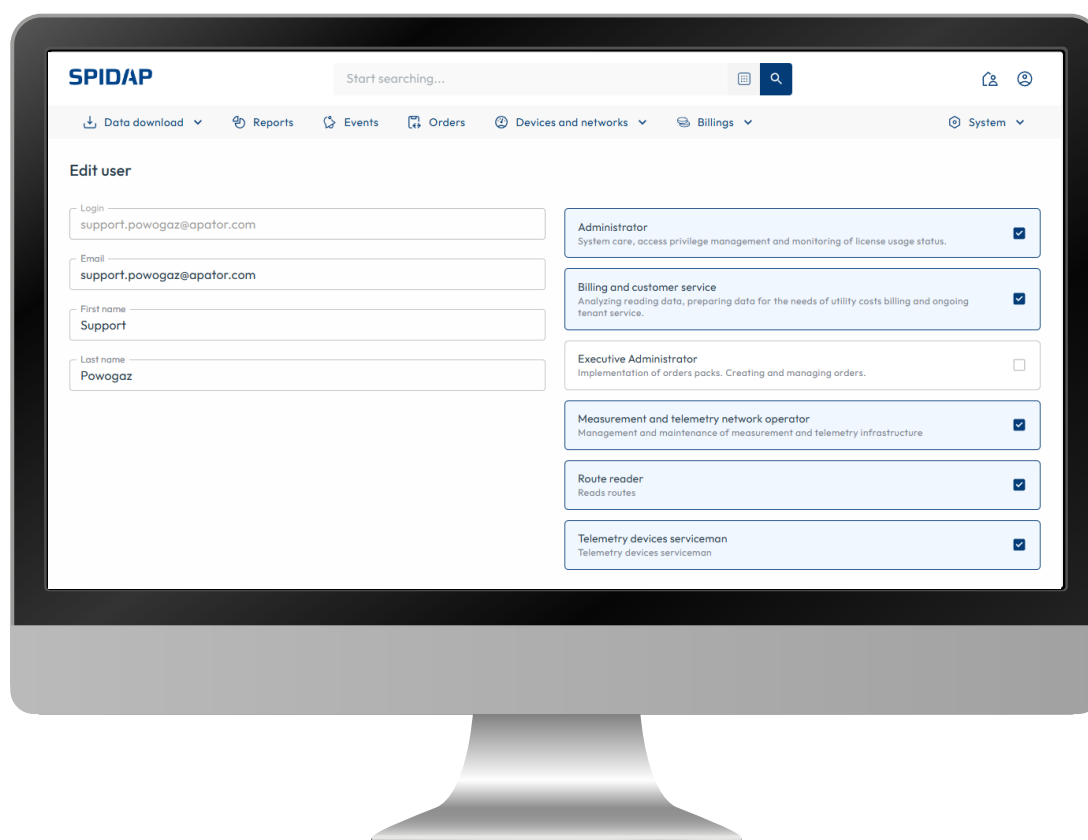
- geographical location,
- consumption,
- installation date,
- type and size,
- diameter and body length,
- year of production,
- date of last certification.

Each address point also has its own registration data, including such information as:

- contract number,
- name and contact details of the contractor,
- name and contact details of the administrator,
- optional data such as area, number of consumers, etc.

## Users and Roles administration

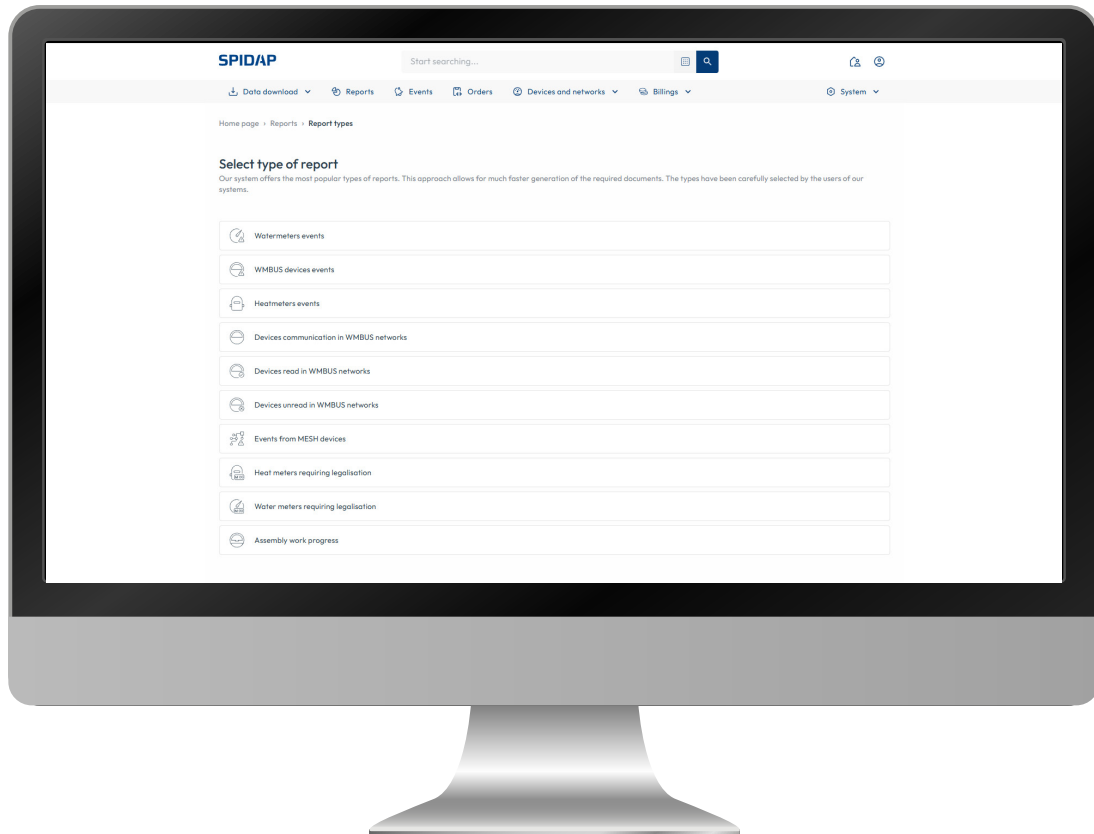
SPIDAP Cloud together with SPIDAP Engine, offers autonomous, unrestricted system management, allowing for the creation of user accounts without any quantitative limitations. Authorization management operates on the principle of RBAC (Role-Based Access Control). This involves defining roles for various organizational functions, each associated with a specific scope of authority and responsibilities. Roles are endowed with relevant permissions within the system. Subsequently, roles are assigned to users, granting them permission to perform actions specified for these roles. Users may hold multiple assigned roles, while each role may be assigned to multiple users. RBAC is characterized by defining roles and permissions in alignment with the actual functions of the organization. It is particularly effective in implementing the principle of separation of duties and authority, as well as in scenarios where certain operations necessitate the approval of two independent users.



- Time-saving and user-friendly interface.
- Accurate parameters delineating the extent of authority.
- Security of sensitive data.
- Capability to modify the scope of authority within a specific role, such as adjusting options available to users with a single click, eliminating the need for individual updates.
- Revoking role authority does not erase user history.

## Data export wizards

We've developed a versatile tool for exporting meter reading data. You can select the data you want to export and specify various parameters affecting the format of the exported file. Exporting data for analysis or billing systems will likely be a recurring task (e.g., monthly). Therefore, you can save export settings as templates and schedule automatic exports. During the export configuration, you must specify which readings you need.



How often can meter reading data be exported?

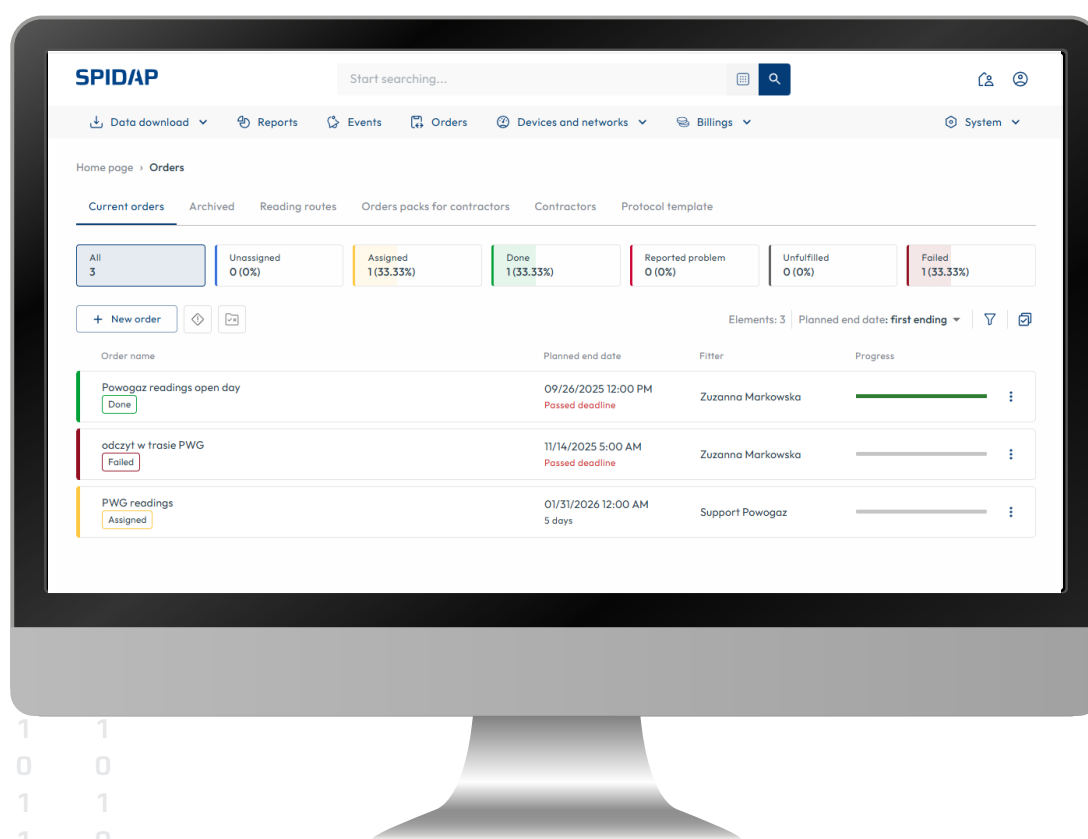
Our exporter is flexible enough to allow exporting data at a frequency that suits your needs. Typically, such exports occur monthly. The export process is triggered according to the schedule settings:

- on demand – on specified dates and time,
- hourly – at specified minutes past each full hour,
- daily – at specified hours every day,
- weekly – at specified hours on specific days of the week,
- monthly – at specified hours on specified days of the month.

## Orders and Tasks management

This feature entails providing remote facility management, particularly for conducting readouts, installations and replacing measuring devices. Task manager feature is highly beneficial for businesses, for several reasons:

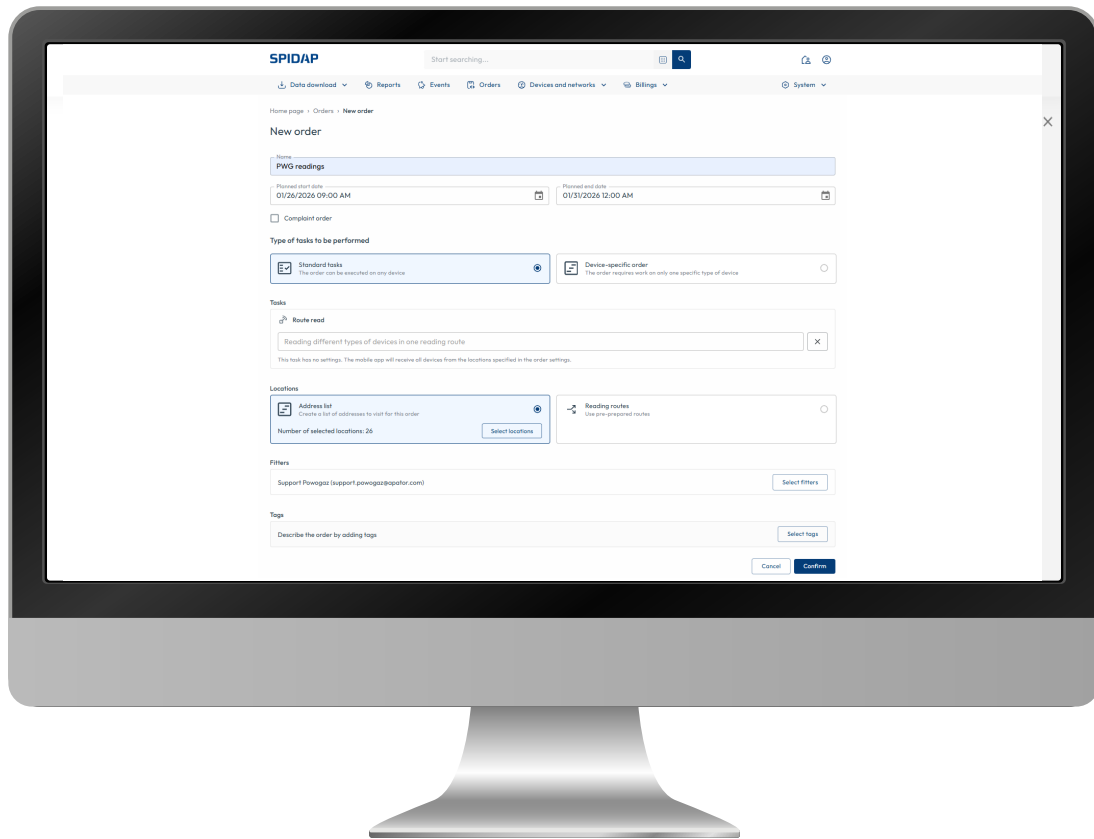
- 1. Optimized Scheduling:** enables efficient scheduling of employees based on demand forecasting, employee availability and skill sets. This ensures minimizing overstaffing or understaffing situations.
- 2. Resource Allocation:** ensures that workloads are balanced across teams or departments. This prevents burnout among employees and improves overall productivity.
- 3. Time and Attendance Tracking:** eliminates the need for manual timesheets. This reduces errors and ensures accurate payroll processing.
- 4. Compliance Management:** helps businesses to stay compliant with labor laws and regulations by automatically applying rules for overtime, breaks and other labor requirements.
- 5. Performance Monitoring:** provides insights into employee performance through metrics such as productivity, efficiency and quality of work. This helps managers identify top performers and areas for improvement.
- 6. Data-driven Decision Making:** provides real-time data and analytics, allowing managers to make informed decisions about staffing, resource allocation and strategic planning.



1  
1  
0 1  
1 0 1  
0 1 0  
1 0 1  
0 1 1  
1 0 0  
0 1 0  
1 0 1  
1 0 0 1  
0 1 0  
1 0 1  
0 1 1  
1 0 1  
0 1 0  
1 0 1

# Orders and Tasks management

1 0 0  
0 1 1 0  
0 0 0 0 1  
1 1 0 1  
0 1 1 0  
1 1 0  
0 1



The planning of reading routes or installation tasks (meter replacement or meter installation), relies on measurement sets. A measurement set consists of a measuring device (water meter, heat meter, etc.) and its associated telemetry device (add-on or embedded communication module).

Each of these components is described in the system, considering its technical characteristics, such as:

- device type,
- model,
- serial number,
- connection diameter,
- body length,
- installation method,
- production date,
- date of last legalization.

Additionally, a textual note can be added to each measurement set. This data allows for filtering and sorting addresses based on the technical features of the installed devices.

This information is synchronized with the mobile application, in tasks assigned to specific installers.

## SPIDAP Mobile



SPIDAP Mobile is an easy-to-use and intuitive tool for walk-by / drive-by readings, supporting the installation process, device exchanges, and investment management. It saves time at every stage of work, improving the efficiency of handling mass quantities of devices, which can be managed by internal staff or external companies. The software's goal is to replace paper-based protocols with electronic ones.

### SPIDAP Mobile

#### Remote readout

**Radio Reading:** based on predefined reading route for a walk-by and/or drive-by readout.

Measurement data from water meters, heat meters, and heat cost allocators are read from outside residential premises, utilizing free frequency bands and communication protocols (e.g., Wireless M-Bus). A single reading takes fractions of a second and occurs without direct contact between the reading device and the measurement device's radio module. In the case of multi-story buildings, there may be a need for the field metering agent to move to higher elevation levels to read devices from higher floors.

After the readings are completed, the measurement data is wirelessly synchronized to SPIDAP Cloud. The readings can then be retrieved by the built-in billing module within the system or exported to files compatible with typical billing software programs.

#### Installation & Configuration

**Configuration:** Allows parameterization of already installed devices using an NFC interface.

**Data Logger:** Used to retrieve historical data from devices using an NFC interface.

**Radio Environment:** Module allowing the detection of devices transmitting radio data in the free IMS 868 MHz band.

**Installation and Service:** Module enabling primary installation or device replacement processes based on predefined order forms, uploading profiles to devices, and preparing installation or replacement reports.

**Verification:** Module allowing adjustment of settings responsible for device calibration.

1  
0  
1  
0  
1 0  
1 1  
1 0  
0 1 1  
1 0 0  
0 1 0  
0 1 1  
1 1 1 0  
0 0 0 1  
1 1 1 0  
0 0 0 1  
1 1 1 0  
0 0 1 1  
0 0 0  
0 1 0  
0 1

## Benefits of the SPIDAP Mobile module

### Safe & secured



Consumers are not exposed to threats related to admitting unauthorized individuals into their homes, which is crucial, especially for elderly individuals. Furthermore, access to online protocols limits the possibility of sensitive data leaks, in accordance with GDPR principles.

### Reading hard-to-reach devices



Thanks to the use of radio transmission and the absence of the need for physical access to the device, it is possible to read devices in locations with difficult access, such as a water meter pit filled with groundwater or rainwater.

### Modular System



The modularity of the application allows the licensor to grant the licensee the specific permissions to the data modules they require, facilitating easy adjustments and flexibility in negotiating agreements and licenses.

### Service Functions for Housing Cooperatives



Access to service functions is managed from the Administrator level. Data analysis is performed using the same software used for readings.

### Error Limitation



Documentation of the installation of water meters, heat meters and heat cost allocators in the form of photos (before device removal and installation of the new one) helps to reduce human error, thus decreasing additional costs.

### Environmentally Friendly Document Management System



Thanks to cloud data storage, exchanging information becomes effortless. Entities involved in the investment can limit the use of End Customer data and forms used during installations and device replacements. This contributes to reducing the number of resources used, time spent and carbon footprint.

### Efficient Management



Efficient work management during investments, online monitoring of work progress and optimization of installer's work time are ensured. Device installation is expedited by integrating required documentation in one application. Installers do not waste time on unnecessary activities such as traveling to the office to print required forms.

### Data Security



Enhanced security (GDPR compliance) is achieved by phasing out paper documentation. Accelerated data exchange between Administrator-Distributor-Contractor is facilitated.

### Data Archive

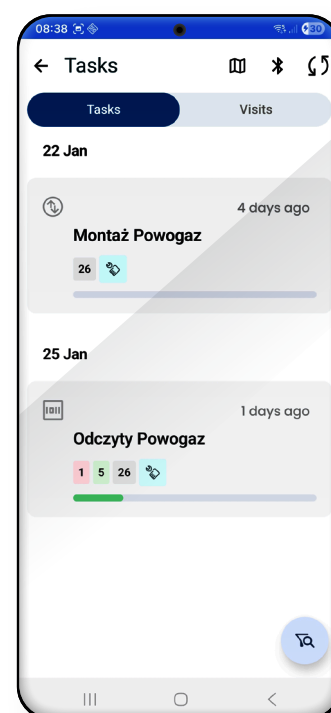
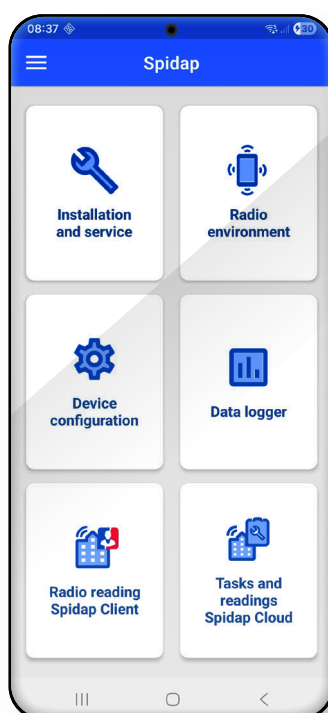


24/7 online access to historical data regarding work on the investment from any location on Earth.

## Task management

Starting work with the application, after logging in, the user is directed to a task list panel. The task list synchronizes automatically according to the tasks assigned to the specific user. Each task includes:

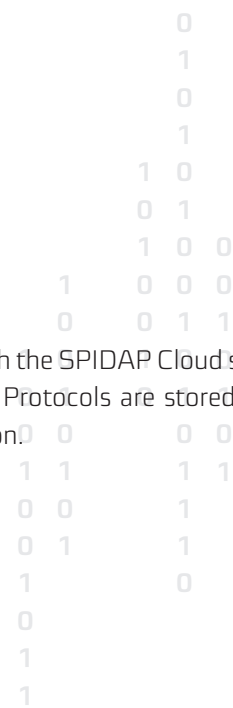
- 1. Type of work:** Selection between manual reading, remote radio reading of a defined route/list of meters, installation of a new device, or replacement of an existing one with a new one.
- 2. Start and end date of work:** Specifies the time when the work should start and finish.
- 3. List of addresses:** Addresses where the work needs to be carried out.
- 4. List of installed devices:** Information about devices installed at specific locations.



Additionally, the installer can specify:

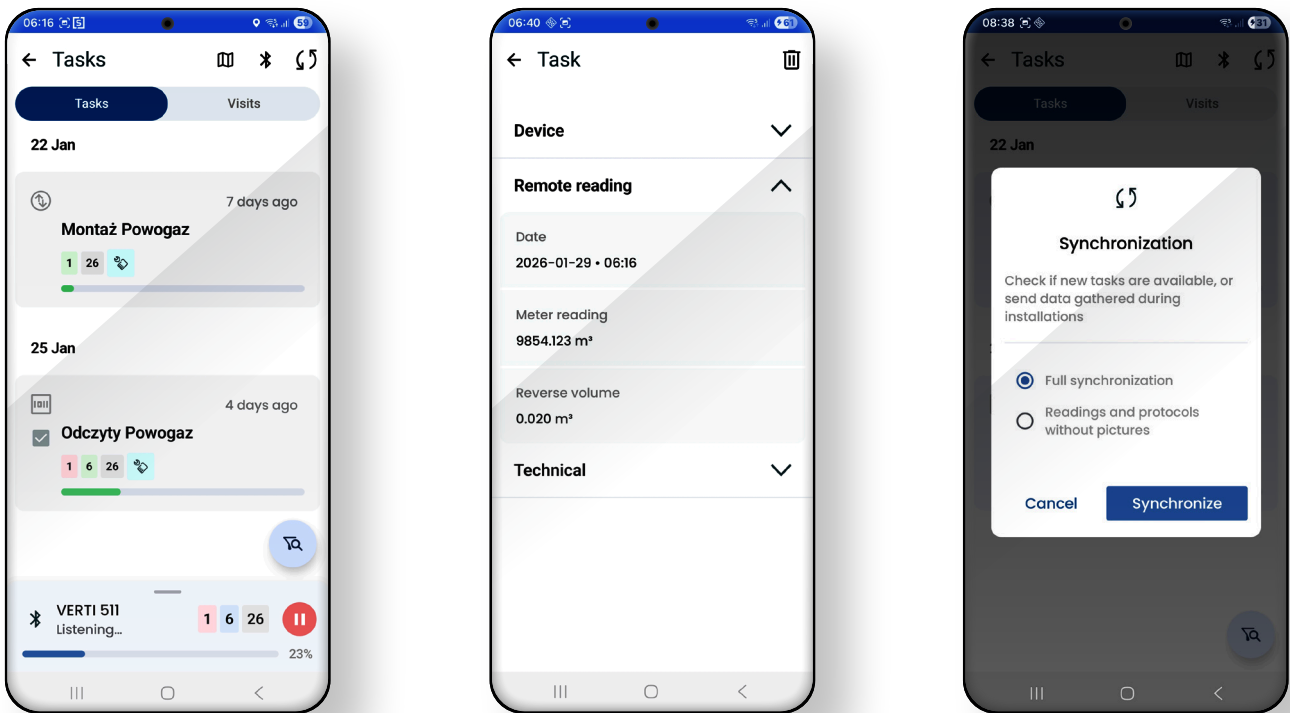
- 1. Scope of additional work:**  
Additional tasks to be performed during work with the meters.
- 2. Photographic documentation:**  
Necessity of taking photos before and after completing the work.
- 3. Obtaining owner's signature:**  
Confirmation of task completion by the property owner.
- 4. GPS positioning:**  
Determination of the location where the work was performed.

The installer can add text notes. After completing the work, all data is synchronized with the SPIDAP Cloud system, where protocols summarizing the completed work and saved photos are generated. Protocols are stored at the address of device installation, allowing full access to the work history at a given location.



## Radio reading Routes

Reading meters using the walk-by method with the VERTI telemetry device enables fast and effortless data collection from meters equipped with radio add-on modules or integrated Wireless M-Bus OMS communication. Radio reading significantly reduces time consumption and digital data synchronization helps eliminate manual input errors. Field metering agents are equipped with radio devices that receive radio data frames from measuring devices. Utilizing Bluetooth communication, these devices transmit data to the SPIDAP Mobile application installed on an Android mobile device. The application associates the meter number with the data obtained from the meter, storing the meter reading in the phone's memory. Data collection routes can be completed either on foot (walk-by system) or by car (drive-by system). Measurement data collected on the mobile device is then remotely synchronized with the SPIDAP Cloud system for analysis and sharing of readings.



### 1. Efficiency:

SPIDAP Cloud streamlines operations, saving time and resources through automated processes and intuitive interfaces.

### 2. Accuracy:

Precise parameters and data synchronization ensure accurate readings and minimize errors.

### 3. Security:

Robust security measures protect sensitive data, maintaining confidentiality and integrity.

### 4. Flexibility:

The system allows for easy adjustment of user roles and permissions, accommodating changing organizational needs.

### 5. Convenience:

Features like walk-by meter reading and mobile data collection enhance convenience and usability for field personnel.

### 6. Scalability:

SPIDAP Cloud can scale up to accommodate growth and expansion, adapting to evolving requirements.

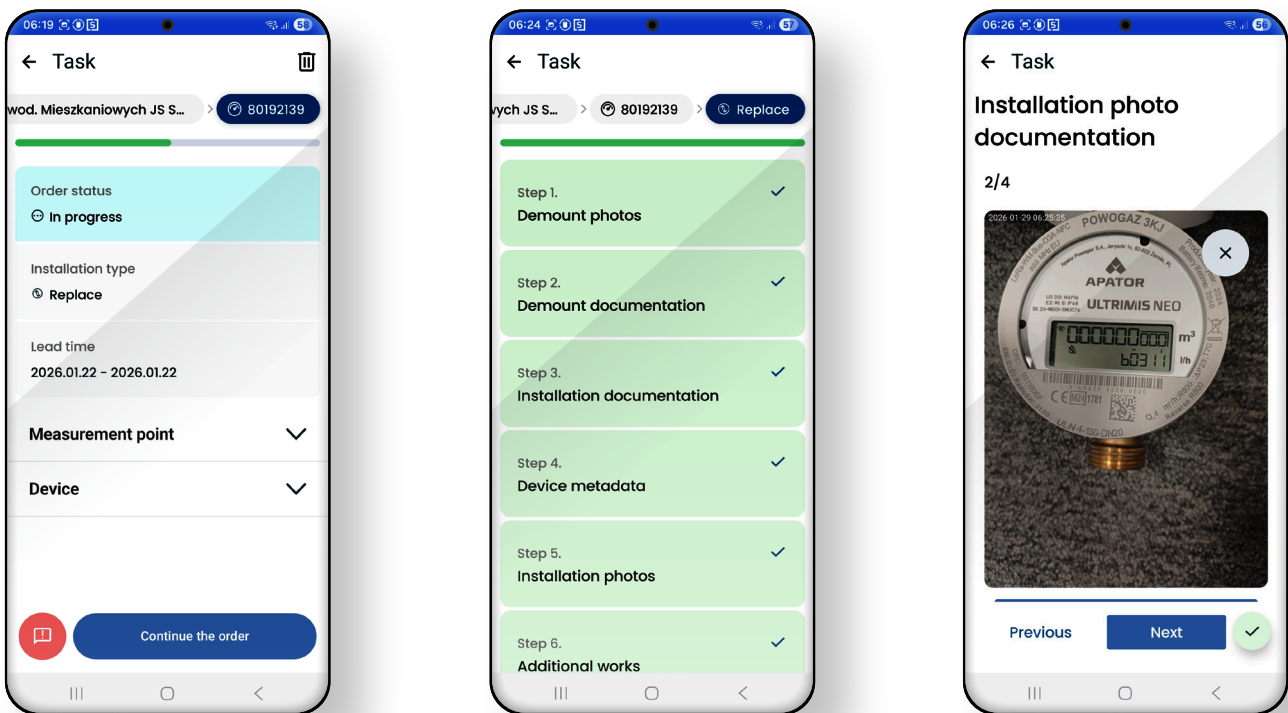
### 7. Transparency:

Comprehensive reporting and analysis tools provide insights into system performance and usage trends.



## Installation & meter Replacement

SPIDAP Mobile application with its feature for workforce management, empower organizations to optimize their operations, increase transparency and achieve higher levels of productivity and customer satisfaction. Mobile apps enable instant communication between managers and employees. This facilitates quick updates, task assignments and feedback, leading to improved efficiency and responsiveness. Employees can access task lists, schedules and relevant information directly on their mobile devices. This reduces downtime and enables workers to stay focused and productive throughout the day. By streamlining processes like scheduling, time tracking and task management, mobile apps eliminate paperwork and manual data entry. This saves time and reduces errors.



With SPIDAP Mobile, employees can access important information from anywhere, at any time. Mobile apps can reduce costs associated with traditional workforce management methods, such as printing schedules or maintaining physical timesheets.

Mobile apps allow for real-time data collection, enabling organizations to gather accurate information on tasks, inventory and other operational metrics.

By improving communication and efficiency, mobile apps contribute to better customer service. Employees can respond to customer inquiries more quickly and provide accurate information.

The task execution is divided into individual steps that guide the installer through the entire process. All tasks must be completed and approved to finalize the work. Each stage can be confirmed with photographic documentation, allowing for verification of any disputed issues at any time after the work is completed.

This support helps in avoiding errors in the field, resulting in faster task completion and greater customer satisfaction.

## Profile Configuration

The universal communication units APT-xxxxx-NA-x for water meters consist of a detachable assembly comprising an intermediate mounting ring, cover and radio module. The ring is used to secure the radio unit onto water meters manufactured by Apator Powogaz S.A. or other producers, ensuring proper installation and positioning.

A profile on a water meter typically refers to a set of configured parameters or settings that define its behavior and functionality. Different types of profiles can provide various information and capabilities, depending on the specific metering system and customer requirement. Common profiles and their functionalities include flow profiles which define how the water meter measures and records flow rates over time. Diagnostic profiles monitor the battery status, meter calibration and error detection.

Communication Profiles determine how the water meter communicates with external devices or systems. They specify transmission payloads, frequencies, and data formatting. Event profiles capture and report specific occurrences or events related to meter operation. This can include alerts for tampering, flow reversals, magnetic interference, or other unusual conditions. Data Logging Profiles dictate how metering data is stored, archived and transmitted.

User Configurable Profiles allow users to customize profiles based on specific needs or applications. This flexibility enables tailored functionality according to user requirements. Configured profiles can be saved under custom names and uploaded to multiple devices, ensuring consistent operation across all units. This streamlines data collection, analysis and continuity of metered information.

The exact capabilities and parameters of a profile will vary depending on the specific water meter model, its associated software or application, and the intended use case (e.g., residential, commercial, industrial). Profiles play a crucial role in optimizing water meter performance, enhancing data collection and analysis, and ensuring efficient water management.

## Key Benefits

### Benefits for Water Supplier:

- Improved organization and higher efficiency of meter reading processes
- Reduction in water losses
- Access to readings via a web portal
- Alerts for anomalies in meter or installation operations
- Positive impact on company image as customer-friendly
- Rapid response to network failures through the installation of automatic valves at nodes

### Benefits for Water Consumer:

- Information on current water consumption, promoting water conservation and increasing efficiency in its use
- Alerts for anomalies in meter or installation operations (via SMS or email)
- Access to historical data
- Meter reading without staff involvement, without the need for additional devices
- Mobile application support

### Benefits of Intelligent Metering:

- Control and notification functions
- Users can set logical alarms, defining mathematical formulas comparing read values or results with a user-defined threshold over time. For example, a small increase in volume on the water meter over the next three hours may indicate a leak in the installation and notification of such an increase in the water meter reading will be immediately sent to the consumer. Such alarms allow for quick identification of failures and precise identification of internal installation faults or areas requiring adjustment.

### Main Advantages of the SPIDAP Cloud Platform

- Clear graphical interface and ease of use with value labels
- Ability to set logical alarms to detect improper installation operation and meter malfunctions
- Provision of access to readings to customers for water consumption control and efficiency improvement
- By installing a meter in a building, its purpose is known, which needs to be reflected in the system by selecting the appropriate label, e.g., main water meter
- Open architecture supporting various types of devices from different manufacturers
- Expandability
- Use of communication modules or 868MHz wireless MBus OMS signal converters
- Data exchange with external SCADA systems via dedicated APIs
- Intuitive operation

### Reports and Meter Readings Export:

- The platform converts collected data into specified file structures in compatible formats and transfers them to other systems, such as billing systems, at specified intervals. Various report and export formats can be created, tailored to each client's requirements.

1  
0  
1  
0  
0 1  
0 1  
0 0  
1 1 1  
0 0 0  
1 0 1 1  
1 1 1 0  
1 0 0 0  
1 1 1 1  
0 0 0  
1 1

The data presented in the data sheet was correct on the date of publication.

The manufacturer reserves the right to modify and improve its products without notice.

This publication is intended for information purposes only and shall not be construed as a commercial offer under the Polish Civil Code.



Apator Powogaz S.A.

Jaryszki 1c, 62-023 Żerniki, Poland

**Office:** sekretariat.powogaz@apator.com, tel. +48 61 84 18 101

**Sales / Customer Service:** tel.: +48 61 84 18 149

**Customer Service Centre Support:** handel.powogaz@apator.com

**Export:** export.powogaz@apator.com

**Technical Support:** support.powogaz@apator.com, tel. +48 61 8418 131, 134, 294

**Warranty Claims:** reklamacje.powogaz@apator.com