ATLAS is an **open cyberphysical systems platform** which brings together different types of cyberphysical systems stakeholders such as: service providers, technology providers, end-users and researchers. ATLAS achieves to interconnect uninterruptedly all the components that range from the domains of **physical devices** to the **web services.**

ATLAS Services

Small autonomous applications based on microservices architectural pattern

Types of services
- Communication services
    - HTTP
    - Messaging
- Coordination services
- Data Handling services
    - Storage
    - Online/Offline analysis
- Event Handling services
- Notification services
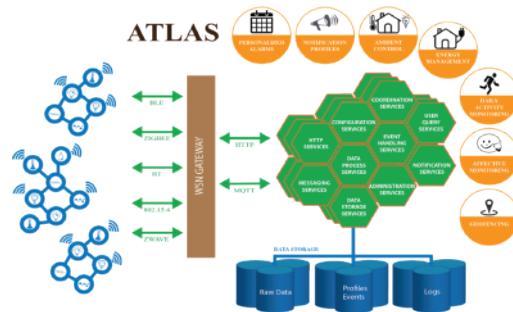
Monitoring in ATLAS

- Web interface
- Real-time monitoring
- Message filtering
- Configuration management
- Services:
    - Monitoring
    - Reconfiguration
- Wireless sensor network management
    - Gateways' management
    - Sensors' Reconfiguration

Data Handling in ATLAS

- Polyglot persistence
- Real-time data analysis
- Offline data analysis
- End-users' queries through APIs

ATLAS Gateway Implementation

- Flexible Addition, Deployment, Configuration and management of Application
- Decoupling of dynamic application components from core gateway components
- Homogenized Messaging passing protocol approach for both WSN and Backend communications

Wireless Sensor Networks supported by ATLAS

- Communication heterogeneity support
- Multiple communication technologies
- Indoor & Outdoor sensor networks
- Communication over MQTT-SN

The development of the gateway is based on **modular design principles** so as to be able to be **enhanced and enriched with applications that deliver new functionalities and characteristics**

BUSINESS USE CASES – STRATEGIC PARTNERHIPS

Diagnostic checks - Accessibility - Mobility ► TOBEA/SEATRAC

Monitoring of autonomous access provisions for the disabled and people with mobility problems at sea.
A cloud-based infrastructure based on the ATLAS platform, which performs diagnostic checks on SEATRACs at regular intervals, in order to predict and address possible problems

www.tobea.gr

Transport – Fleet tracking & monitoring ► METRICON: Tracking & Monitoring services for oil vehicles

- Sensors monitoring fuel vehicle during while it is in operation and transmitting data
- Data processing and notifications generation for system administrators
- Fuel Vehicles administration

www.metricon.gr

Precision Farming – SEPALIS

Precision Agriculture System for crop soil data aggregation and analysis

- Monitoring and recording of growing conditions via sensors & cloud computing technologies
- Support tools for accurate and timely detection of potential diseases
- Prediction of crop needs using AI/ML

www.sepalis.com

ZERO 01NE
TECHNOLOGIES

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Helpdesk

ATLAS is supported 24/7 via an online Helpdesk. Technical experts are addressing all requests within the same working day. Helpdesk is also used to propose new features and functionalities

ATLAS

A scalable versatile platform for interconnecting heterogeneous cyberphysical components and services