

Company profile



IoT products and solutions

ONYAX

We provide intelligence to your sensors!

About us

We are a young and dynamic Italian company made up of skilled professionals with many years of experience in various fields of engineering. We design and manufacture smart devices equipped with multi-standard, ultra-low-energy telecommunication interfaces. We integrate our devices into existing infrastructures and make them available for activities related to management, remote control, scheduled maintenance, recording, process optimization and certification.



What we believe

We believe that intelligence, communication capabilities and usability of objects constitute not only a necessity but also, and above all, an opportunity to improve quality of life and our daily work.

Mission

Onyax mission is to support the insertion and integration of objects into the digital world through the design and production of sensors, devices, tailored solutions and innovative management platforms. Onyax aims at creating and maintaining constructive partnerships, supporting its own Customers in their achievement of business growth goals through the use of digital technologies for data acquisition and collection by means of different types of sensors.

Vision

Onyax vision is to increasingly strengthen own presence in this new industrial revolution, with a view to making business processes more efficient through innovation, invention and creativity. All this is carried out in the perspective of our future development as a highly specialized company, able to offer innovative and tailored solutions in the IoT (Internet of Things) sector, in the awareness that more and more simple objects will be equipped with intelligence and need to accomplish remote communication.

Progress is impossible without change!

Onyax is an innovative company, born to face today's challenges and always by your side to help you achieve your goals for the future.

Onyax in a nutshell

2017

*year of Onyax
foundation*

25 years

*of experience in software and
hardware design*

50_k

*devices installed since 1994, including
technologies referable to Onyax*

3 patents

*2 Patent Pending and 1
Patented since the end of 2018*

∞ solutions

*customized for your
sector*

Our history

Onyax is an innovative startup founded at the end of 2017. The company's mission is to develop devices, platforms and tailored solutions for the realm of IoT.

Our team has been focusing on research and development activities since the very beginning, patenting and implementing the first integrated, connected device for electrical conductivity monitoring in water at the end of 2018.

The solutions proposed by Onyax feature devices which operate with their own power supply (internal battery with more than 10 years of life expectancy) and without SIM (exploiting, where possible, NB-IoT Narrow Band communication networks), and are managed through applications for smartphone (Android or Apple) or using a web platform for IoT ecosystem control.

Thanks to the flexibility of the developed technology and the use of standard protocols open to any kind of integration, Onyax meets multiple needs on the Smart City market (with monitoring solutions designed for water, electricity, gas and district heating networks) and Smart Building market (e.g. solutions for the monitoring of condominium boilers, air conditioning and refrigeration systems).

Onyax solutions control countless processes, satisfy any request relating to telemetry and remote monitoring and make each sensor - even a traditional sensor - intelligent and suited for long-range communications, in a simple and cost-effective manner.



Internet of Things

Internet of Things at your fingertips with ONYAX innovative solutions available for process control, telemetry and remote management applications.



New horizons in technology

Thanks to the wide market deployment of IoT solutions, today it's possible to introduce new telemetry and remote process management techniques. Also, with regard to already existing technologies, IoT solutions allow for significant cost savings both in economic terms (investment and operating costs) and in terms of energy and environment.

A constant information dissemination in objects enables a continuous process development.



An ecosystem under control

IoT revolution makes it possible to unify different information in a single ecosystem, simplifying overall management processes.

Objects play a primary role in providing information, and benefit from techniques of globally deployed artificial intelligence which allow for their interaction and interoperation.



The future at your fingertips

Today we can implement IoT solutions in different applications, making it possible to apply solutions which, until recently, seemed only to belong to the distant future. Smartphones and tablets become more and more connected to the ecosystem, useful for monitoring and testing procedures without requiring huge investments in control rooms or round-the-clock manned solutions.

The smart choice for your sector

The right technology mix of design and integration for every need you may have

Onyax faces the internet market by offering to its customers the right mix of dedicated projects and integration of third-party solutions.

This is possible thanks both to the experience gained by Onyax staff in the electronic, mechanic and software engineering field, and to the choice to operate with standard and open protocols which allow for the integration of solutions available on the market.

Thanks to this philosophy, our proposed solutions may be applied to all fields where IoT devices are needed, fulfilling requests in fields where the implementation of such technology was inconceivable until now.

Visit our website www.onyax.com for a more detailed insight into your sector, or feel free to call us if you need any further information.

SMART CITIES



- Water / Gas Metering
- Parking & street lighting
- Pollution monitoring



SMART BUILDING



- Security
- Climate and energy saving
- Air & water quality control

INDUSTRY & AGRICULTURE

- Oil & gas telemetry
- Industrial IoT
- Smart agriculture

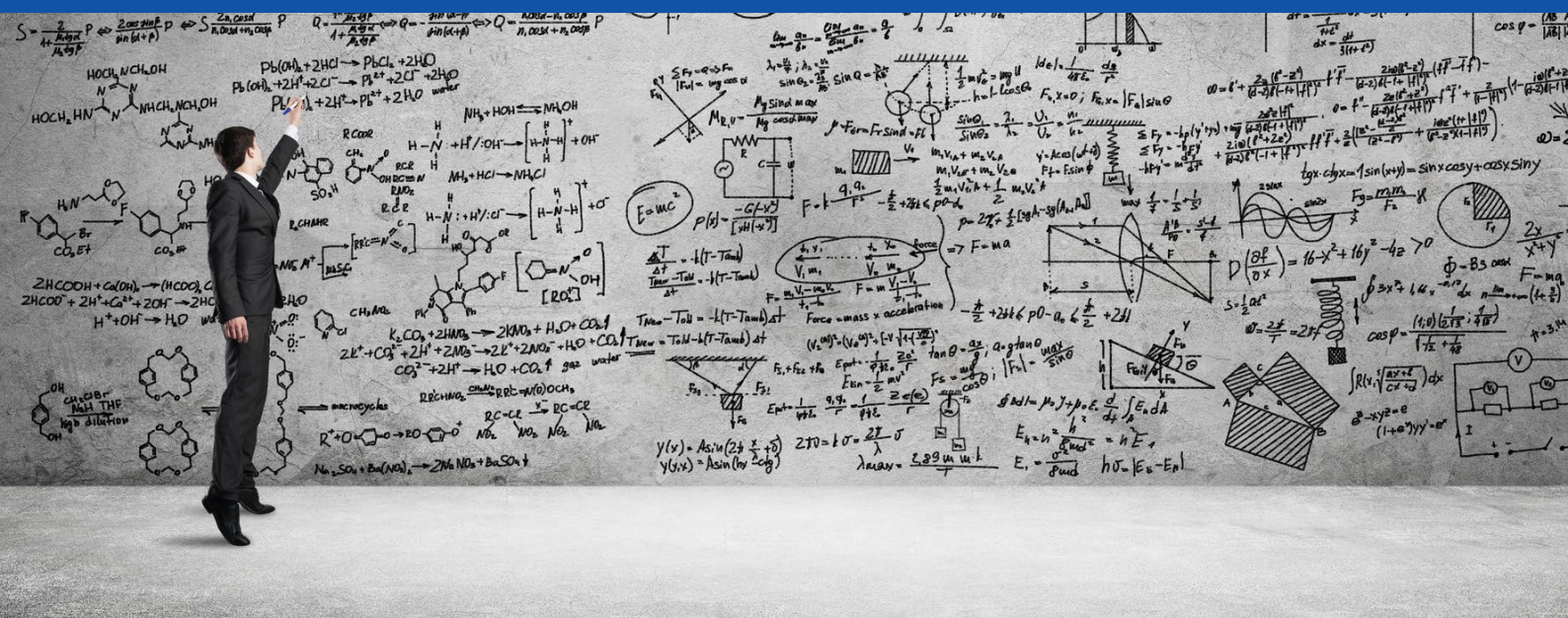


PERSONAL LIFE

- Assets Tracking
- Wearable devices
- Person/Pet Tracking



Our solutions for your success



Standard and interoperable architectures

The objects proposed by Onyx comply with market standards in terms of communication protocols through the integration of MQTT/JSON semantics for each communication.

Thanks to this projectual choice, it is possible to diversify any offer according to specific customer requirements, actually being able to offer either the whole system or just a part of it, leaving the door open to the integration of systems available on the market.

If a customer wants to integrate an Onyx device into their own systems, they benefit from the standard and, consequently, the ease of integration; otherwise it is possible to deliver a complete turnkey system for every specific need.

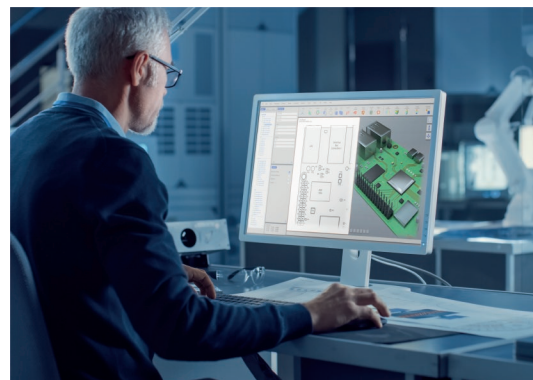
Therefore, this architecture allows to deliver the right answers to those who need product integration or a simple monitoring solution, ensuring also complete fulfillment of control requirements in complex processes.

Dedicated design solutions

Onyax staff possess all the planning skills required for the implementation of an idea, starting from the design, proceeding with the electronic and firmware development, and finally tackling telecommunication issues.

When implementing our project activities, we always opt for standard and open solutions, allowing an easy integration into IoT platforms available on the market.

Our customers are really satisfied when they see their own ideas realized and included in a IoT ecosystem.



System integration

System integration always forms an integral part of our device and platform design.

Thanks to our capabilities in terms of integration and implementation of standard and proprietary protocols, we are able to offer a complete service to the satisfaction of our customers constantly on the lookout for integration and revamping solutions.

Our specialists are able to design the best solutions for our customers by integrating standard products available on the market, without adopting any dedicated systems or architectures.

Thanks to the use of standard protocols, Onyax solutions can operate with the main communication networks, and dialogue with the biggest virtual servers currently taken as a reference.



GSM



sigfox

LoRa



IBM Watson IoT



Microsoft Azure



Devices

ONYAX designs and manufactures intelligent sensors, acquirers/dataloggers, and solutions for structured cabling systems which are able to meet any telemetry needs in the IoT world and industry 4.0.



Smart sensors

Smart sensors are devices which integrate in a single object all the functional components required for the acquisition and the long-distance transmission of chemical and physical quantities. During the design stage, particular attention is paid to energy saving and absorption reduction in the equipment itself, so that the integrated battery will actually last as long as the product service life.

Intelligent sensors are typically applied in the monitoring of chemical and physical quantities of liquids and gases, more precisely in the acquisition of pressure, temperature and vibration data, or the chemical analysis in terms of measurement of any odourants or contaminants, especially in city gas and drinkable water.

The picture shows TUBE-T3, a gas pressure and temperature monitoring device, ATEX certified; it is widely used to monitor network pressure in the field of transportation and distribution of liquids and gases.





Acquirers and Dataloggers

In the IoT world there is a great demand for devices designed for the acquisition of information from existing sensors and the transmission of such information on cloud platforms, where the acquired data are processed without resorting to external energy sources.

Thanks to these products, traditional devices can be identified as elements included in the IoT ecosystem, and standard sensors can be converted into smart sensors.

The picture shows CUBE-C3, a Nb-IoT acquirer and datalogger with integrated battery. It is used for the acquisition of both analog and digital quantities.

CUBE-C3 is applied in several solutions, from the monitoring of the cathodic protection to the checking of the coating integrity in district heating and in any kind of Smart City applications.

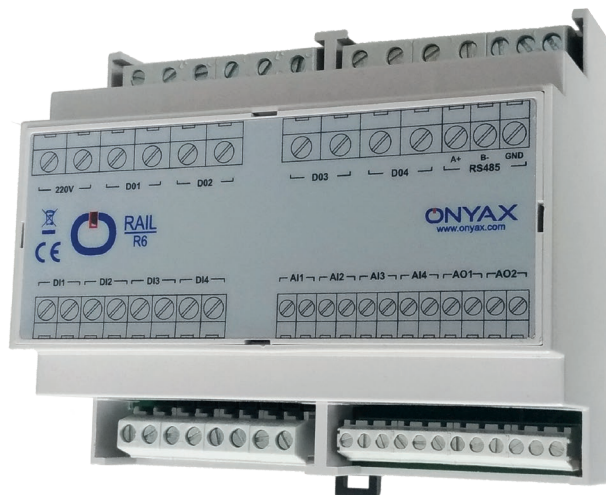
Structured cabling system

IoT technologies are also increasingly applied in industrial and Smart Building environments, that's why we are now seeing a growing request for flexible devices equipped with standard communication interfaces.

The main features required to meet market needs are the product interoperability with standard protocols, together with an easy integration of the product in the structured cabling architectures available in the monitored plants and buildings.

It is therefore possible to make a refrigerator smart, complying with specific regulatory requirements (e.g. HACCP), or control a heating system from a distance by means of remote control and supervision.

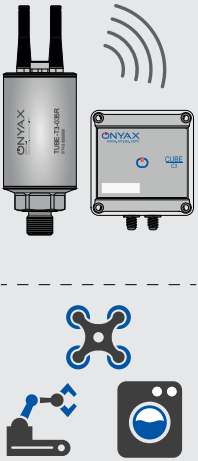
Onyax suggests RAIL-R6 for all applications where analog and digital data acquisitions as well as actuations and fieldbus interfacing are needed, so enabling even complex structures, not only simple sensors, to be included in the IoT ecosystem.





ACE (Acquisizione e Controllo Ecosistema - Acquisition and Ecosystem Control) is the first platform which includes all the components required to manage an IoT telemetry network by means of standard technologies available on the market.

DEVICE



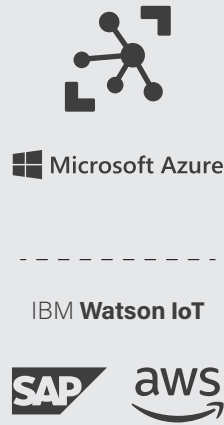
It is possible to connect devices manufactured by Onyx or third parties on the ACE platform, as long as they operate with standard protocols.

CONNECTIVITY



It is possible to use different communication channels to interact and exchange information with ACE.

HuB-IoT



Any HUB supporting standard protocols like MQTT(S) / http(S) / AMQP(S) can be used as an ACE front end.

FUNCTION & STREAM



Several applications can be integrated in a telemetry network to meet the most disparate requirements.

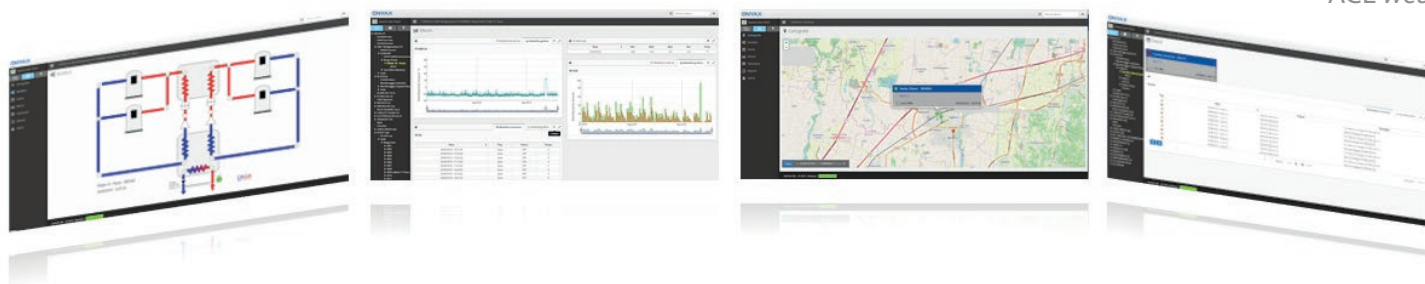
ACE ensures the management of any IoT device adopting standard, open protocols, with different communication channels.

The whole of the technological solutions applied in the HUB-IoT connection, the data stream and storage provide solid, secure data bases to user interfaces, reporting services, and connections with other operating environments.

By opting to use ACE, you finally choose not to depend on closed, limited, and proprietary protocols or platforms anymore.



ACE web



STORAGE



Microsoft
SQL Server

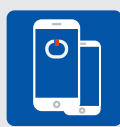
ORACLE
DATABASE

MySQL

ACE is designed for a correct BIG DATA management in different relational databases available on the market.



ACE Web

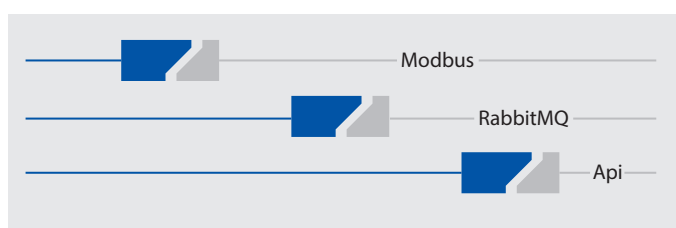


ACE Mobile



ACE Trax

User interface. ACE is equipped with both user interfaces (ACEweb and ACEmobile) and network operator interfaces (ACEtrax), allowing the use and the control of one or more monitored applications in a simple, intuitive way



Connectors. Dedicated connection functions enable ACE to interoperate with different platforms (archGIS, CRM), ensuring the utmost interoperability and flexibility of the suite in other operating environments.



Services and ACE Reporting. Thanks to dedicated, interactive reports you have everything under control in full respect of any directive or provision established for the specific applications managed with ACE.



ACE mobile

ACE reporting

ACE reporting

ACE trax

www.onyax.com



ONYAX



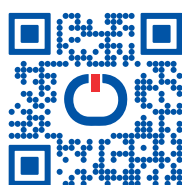
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