XENON

Configure a network of LoRa™ connected objects in just a few clicks

The XENON is an « all-in-one » solution. It integrates a Network Server, an Application Server, a storage area and software connectors in a single product to interface with your industrial IS. It allows you to simply deploy your communicating objects without subscription. The data collected is then transmitted to industrial, local or hosted operating solutions.

BENEFITS

> All-in-one : network core, Application Server, software connectors and dashboard editor and web console

> Creation and customization of dashboard by the operator

> Threshold overrun alert by email or SMS

> Cybersecure platform

> Quantified data : from the sensor to the Application Server

GOALS

Configure a network of LoRa™ connected objects in just a few clicks thanks to our **XENON** solution.

The frames transmitted on the LoRa network are decoded and then the data is made available to local and remote applications Data can also be processed locally.

The XENON can thus be one of the data sources of an industrial PLC on site and simultaneously publish the same data to an online IIoT platform.

INTEGRATED FUNCTIONS

- **Sensor management :** centrally integrate and administer connected sensors / actuators
- **Management of base stations and gateway :** manage the network of gateways
- **Data application management :** interpretation of ontput data (communication, localisation, and instrumentation)
- **Monitoring tables :** formatting and publication of output data (graphs, statuses, etc.) via Grafana or Node-RED

CYBERSECURITY FUNCTIONS

The XENON solution embeds cyber security functions associated with the IIoT network :

- Denied service
- Frame redundancy monitoring
- Join Request monitoring
- Frame counter monitoring
- Possibility of deploying the IP network via VPN type tunneling
- ABP or OTAA pairing mode
- AES128 data encryption

COMPATIBILITY WITH THE MAIN WIRELESS COMMUNICATION PROTOCOLS

The **LoRaWAN® protocol** allows low-flow communication by radio of objects with low electric consumption and connected to the Internet via gateway.

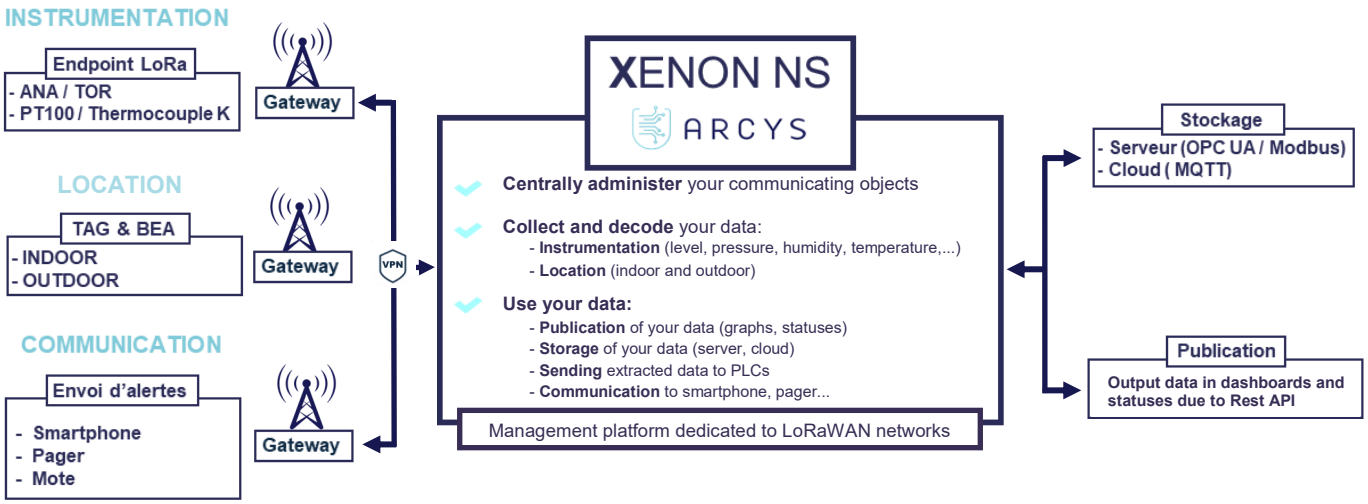
The **MQTT protocol** allows data to be directly published to cloud platforms such as IBM Bluemix, Microsoft AZURE IoT or AWS IoT. Another possibility is to publish to a local data source to which the applications subscribe.

The **gateway integrates an OPC UA server** and the stored data can then be accessed by OPC UA clients from third-party applications (Scada, etc.)

The **gateway integrates a Mobdus server configurable in TCP** whose registers are defined through the configuration interface. The stored data can then be accessed by Mobdus clients such as PLCs, SCADA applications.

Data is sent to web applications via simple HTTP requests in JSON format, a standard for web communication protocols.

An **SNMP protocol** is a standard in the world of TCP/IP networks. An SNMP MIB is locally available.



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