

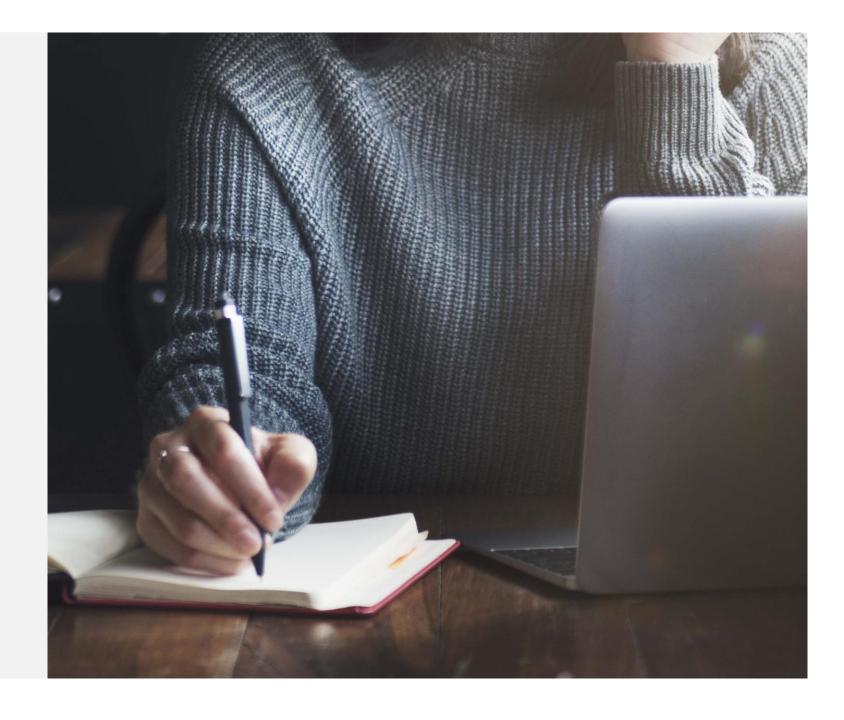
AGENDA

EUGENIO

Market Context

Customer Cases

Business Model









End to End IoT Platform

(software and hardware) which allows corporations to implement IoT projects in a simple way focusing on the business



It's hardware layer, called Cube, enables the connectivity of numerous types of devices in a simple and customized way, allowing the scalability of IoT low cost projects.

The solution consists of cloud and on edge **software layers**, enabling flexible decision making, locally or remotely.



Main Target Audience

BENEFITS FOR APPLICATION DEVELOPERS



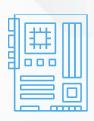
Rapid development of IoT applications leveraged by EUGENIO APIs.



It provides data management and storage in its Big Data engine, elastic infrastructure, security and low latency data exposure.



100% API based technology: developers can use existing interfaces and functions or create their own, based on open APIs.



Flexible hardware architecture due to EUGENIO's FOG components.



Main Target Audience

BENEFITS FOR IOT MANAGERS



Secure, scalable and open architecture, based on standards.



Reliable cloud infrastructure based on Microsoft Azure.



Single platform for all IoT applications, improving governance and security management.



End-to-end management and visibility of devices for data visualization.

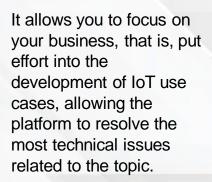


Big Data: all your data in a single data lake, including loT and external data.



Benefits







It concentrates all device

generated by them in a

the management and

and allowing the

on the platform.

administration and all data

single structure, facilitating

governance of IoT projects

development of new use

cases using data available









The creation of a tenant (specific environment with data segregation) is done in seconds, as well as the addition of new devices.



It presents a flexible business model, which fits your business and your needs, allowing a simplified view of the cost benefit.



Advantages

BENEFITS FOR APPLICATION DEVELOPERS









Integrated Big Data, allowing full visibility of the data generated by your devices Structure to support thousands of devices

Device management and storage

Plug and play (easy to connect)

The platform can be used pragmatically, that is, it is possible to include routines for the application;









WHICH MARKET SCENARIO

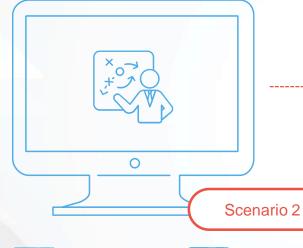
DOES EUGENIO APLLIES?

Scenario 1

EUGENIO is a platform that provides a complete environment for creating any IoT application through its APIs.

Corporations that follow this model can create applications for use in their operations, and also to offer in the market as a service.





EUGENIO is directly associated with IoT projects with defined use cases, in which case it is possible to mention the following applications in a non-exhaustive way:



Logistics: Fleet management and input / product distribution control.



Agribusiness:
Precision agriculture,
climate monitoring, input
control.



Industries: Operational efficiency, monitoring, maintenance, vibration of production line equipment.



Smart Cities:

lighting and

lots.

Manholes, dumps,

connected parking



Retail:

Management of refrigerators and freezers, energy management.





SMART CITY - SMART LIGHTING

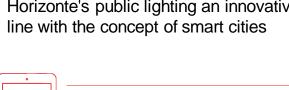


Previous Scenario

- High cost service for the city that did not have manpower, equipment and knowledge and investment / maintenance in public lighting
- Streets not secure and high operating cost



 Need to modernize the lighting park and install a remote management system, making Belo Horizonte's public lighting an innovative project in line with the concept of smart cities



- Low security
- High Operational Costs

Logicalis Solution

- Remote management based on the concepts of smart grid and IoT
- Automation management automation
- Control over energy consumption



















Outcomes

- Increase in the quality of public lighting in Belo Horizonte.
- · Energy consumption reduction
- Operation and Maintenance cost reduction
- · Remote fault management.
- · Increased public safety
- Feasibility of other Smart City projects
- Reduction of environmental impacts with the proper use of energy sources



Smart City



SMART CITY - WASTE MANAGEMENT

ferrovial

Previous Scenario



PROJECT RECYCLABLE WASTE COLLECTION INNOVATION PILOT IN GRENADA

 Routes of fixed garbage collection, which impairs the efficiency of the service, since at the time of collection some dumpsters are still empty or with few residuals



- Non-optimized garbage collection
- 5 simultaneous trucks

Logicalis Cisco Solution

- Sensors in dumps
- LoRa connectivity
- Kinetic for cities
- Microsoft Azure
- BigData Cloudera
- IBM weather forecast
- Logicalis routing software
- Tableut



Outcomes

COST REDUCTION



- 1/3 reduction in the number of simultaneous trucks.
- Optimized collection route.
- Decrease in operating costs with reduced hours worked.
- Reduced fuel consumption and better use of vehicles.
- Improved service quality.



PREDICTIVE MAINTENANCE



Previous Scenario



PREDICTIVE MAITENANCE

- Difficult to forecast and anticipate maintenance on machines.
- When any machine had problems, there was a great loss of productivity.
- Too much time spent doing the necessary maintenance.

Logicalis Solution





EUGENIO



- Predictive maintenance.
- Sensing the Production Line (HW).
- Correlation with reference standards.
- EUGENIO platform.

Outcomes

PREDICTIVE MAINTENANCE

- Better efficiency with less machine downtime
- Identification of atypical / irregular operating situations of multiple variables
- Failure prediction and optimization of maintenance and operation windows



 Maintenance shutdowns scheduled according to need.



PRECISION AGRICULTURE



Previous Scenario



- Members with low integration and monitoring of field operations.
- Rural producers with low management of their crops due to lack of technological tools.
- High operational cost of precision farming processes.

Logicalis Solution

- Agricultural technological services portal.
- Analysis of the plantation using drone images.
- Automation of fertility analysis by management area.
- Weed mapping and drone spraying.
- Mapping of irrigation pivots.





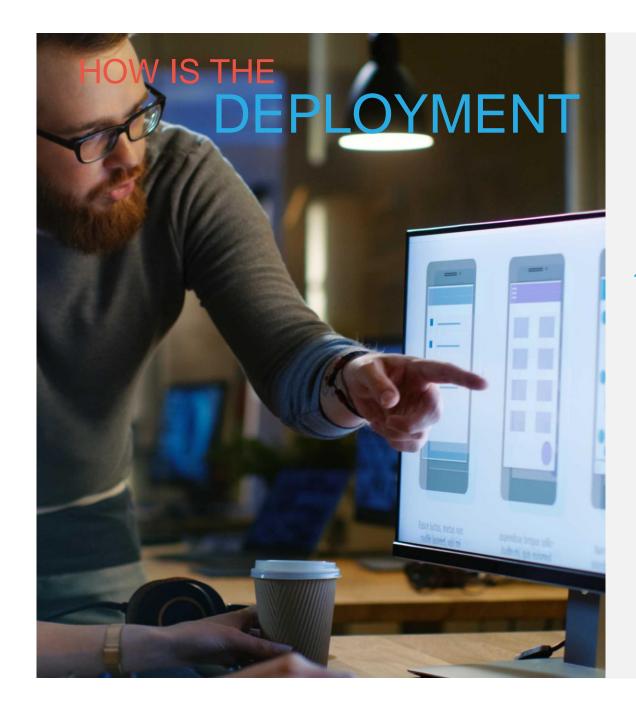
Outcomes

- Increased productivity of crops.
- · Reduction of operating costs.
- Reduced response time between the cooperative and the cooperative member.
- Consolidated view of the farm.
- Modern digital resources like drones and high resolution images.
- Optimization of producer decision making throughout the crop cycle.



Precision Agriculture







IoT projects that do not only involve EUGENIO, have a longer deployment time and vary with each project. However, in the vast majority of scenarios it is possible to create quick wins so that you can have a result between 1 and 3 months.



As it is a cloud solution, EUGENIO is 100% of the time available. A new exclusive tenant is added for each new customer. This process takes a few minutes and is performed by the Logicalis Services team. If the project involves CUBE, it may take a longer time depending on the necessary customizations and manufacturing times.

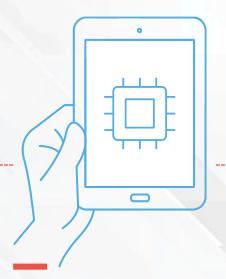






TYPE OF SERVICES OR PRODUCTS WHICH IT IS POSSIBLE TO COMBINE

TO BUILD AN END TO END SOLUTION



An EUGENIO as a platform sale for creating IoT projects can be associated with a consultancy service related to the topic of digital transformation and strategic use-case management.



On the other hand, EUGENIO can generate more opportunities for IoT projects, which in this case may involve:

- Consulting services
- ✓ Managed Services
- ✓ IoT devices
- ✓ Software development
- ✓ Own and third-party IoT applications
- IT infrastructure (security, connectivity, among others)



