# Hemera Iris IoT

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There are billions of devices in homes, factories, offices, weather stations, oil wells, hospitals, vehicles and, in an increasingly technological world, the reliability of communication solutions, collection, storage and smart analysis of data from these devices is also growing.

The IoT world behaves in an increasingly intelligent way, with devices communicating via internet in order to integrate and share data and tasks securely and efficiently.

**Iris**, the Hemera Platform Communication Server, offers operational and strategic support, enabling twoway communication between metering, sensing and automation systems approved in Brazil.

With the **Iris IoT** module, the platform expands the possibilities of communication between devices.

**Iris IoT** is a solution that allows for transparently integrating different devices with various IoT communication technologies, as well as systems and equipment that use different protocols.

Different protocols require new implementations and translators. **Iris IoT** automates the receiving, translation and transmission of information between integrated equipment and systems, making configurations and monitoring the solution's functioning through reports, presenting information in a user-friendly way.



**Iris IoT** is able to translate numerous device protocols, in addition to interacting with systems that allow for receiving and sending data via IoT networks.



## **Iris lot Features**

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- IoT protocol translation engine with expansion to other protocols.
- Interface layers for communication with IoT systems, including CAS Iris.
- Data contingency mechanism, including persistence of messages obtained from integrated IoT systems.
- Transforming message payloads, allowing for conversion of application protocols.



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Solution Architecture - the Iris IoT is independent from the Hemera Iris.



#### Connector

Equipment with new IoT protocols can connect to the **Iris IoT** via a new Connector.

Similarly, in order for the messages from such equipment to be available in a system, there will be a Connector to the system's API - Application Protocol Interface.

#### Message Translator

Messages can be translated between different application protocols via a Translator.

#### Adaptor

This is a kind of *tunnel* for routing messages from IoT equipment using a given protocol to a system that can interpret the same protocol.

An Adaptor entails configuration of:

- 1. An Input Connector for the IoT equipment protocol.
- 2. A Message Translator.
- An Output Connector from the interface protocol to the system that will use make available information from IoT equipment.

The Iris IoT allows for dynamic configuration of new Adaptors.



# Examples of Iris IoT application in CAS Tecnologia products and services

## Alerts

IoT devices can generate events from alerts and occurrences. The **Hemera Gauss** application uses analytical rules with these data to generate decision-making indicators in your business.



#### Apps

iOS or Android apps can measure the signal level from **RS2000 Remote Terminal Units** used in the field.



## **Individualized Metering**

Devices can be implemented in water, power and gas meters, in condominiums, industries and commercial centers, using IoT protocols and monitoring consumption individually.



CAS Tecnologia offers an Individualized Residential and Corporate Metering Service. *mi.castecnologia.com.br* 

### **Geospatial View**

Devices transmit signals that are viewed by map applications. With the **Hemera Dashboard**, the user can monitor these geospatial markers in real time.



#### **Graphic View**

Information collected by IoT devices can become a database for **Hemera Platform** applications, generating monitoring graphs.





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