

SMART GRID, MICRO GRIDS, ENERGY COMMUNITY,  
DEMAND AGGREGATION AND MANAGEMENT.

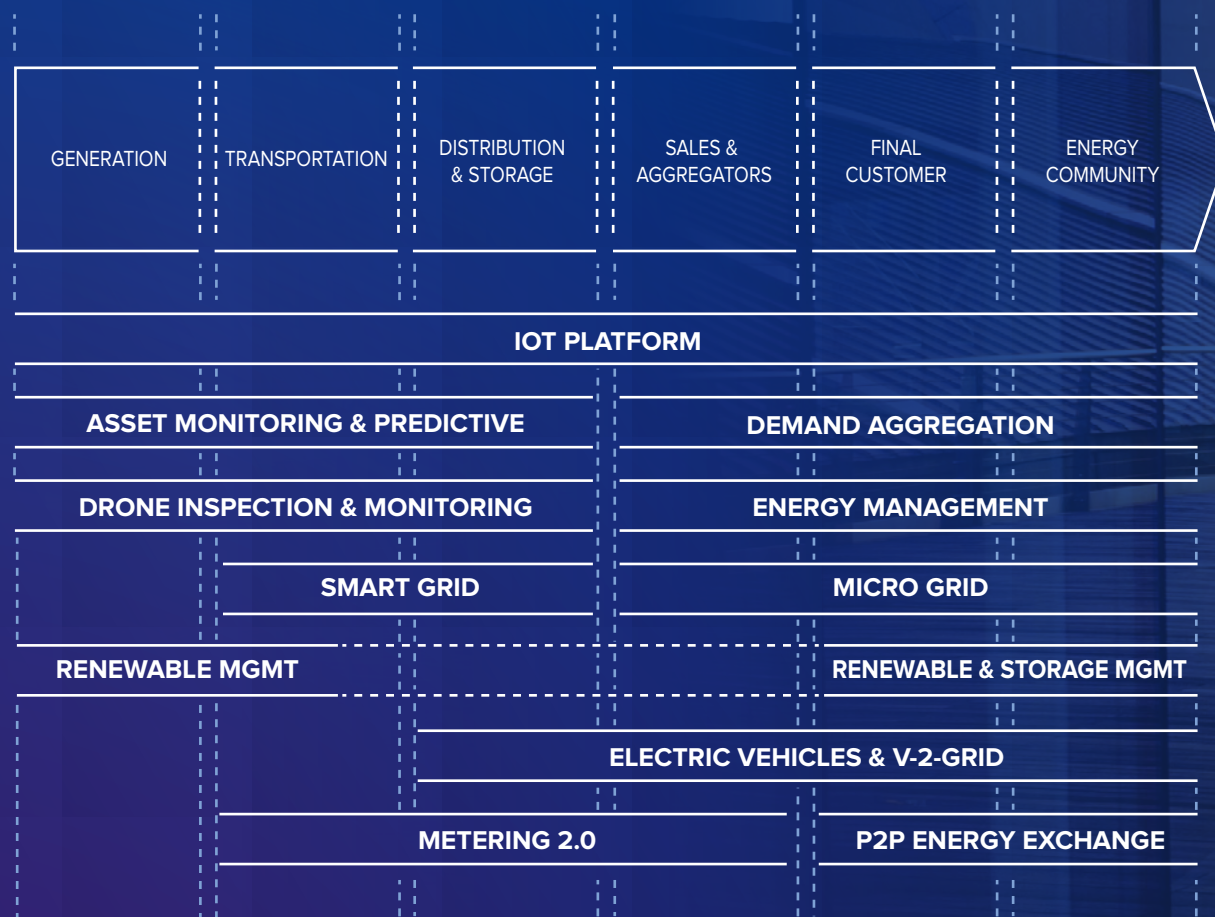
# INTERNET OF ENERGY

The Internet of Things represents an essential building block for the energy & utility sector transformation. Sense Reply is the Reply Group specialist in IoT end-to-end solutions enabling new energy services, business process and business model transformation in any section of the energy & utility value chain.

# THE ENERGY & UTILITY SECTOR IS GOING THROUGH A PROFOUND TRANSFORMATION AS THE SECTOR MOVES TOWARDS A MORE INTELLIGENT, MORE DISTRIBUTED, AND CLEANER USE OF ENERGY.

Utilities' traditional business models are challenged by the regulatory expectations of a dramatic reduction of carbon emissions, a progressive diffusion of renewables sources and distributed generation, energy storage, electric vehicles, end-use optimization, with impacts on any segment of the whole value chain.

Disruptive new offerings of new services are already leveraging advanced technology to benefit from the new business scenario: micro-grids and energy optimization, electric mobility, demand management, peer-to-peer energy management are only a few of the new business opportunities for end customers, energy suppliers and market new players.



The Internet of Things is fostering the business transformation and will enable new data-intensive, real-time processes and business models like Smart Grid, Micro Grids, Energy Community, Demand Aggregation and Management.

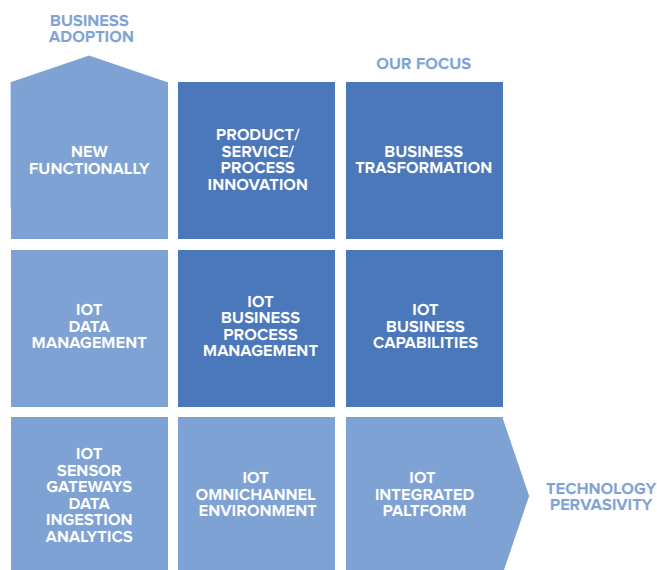
Sense Reply is the Reply Group specialist in Internet of Things, end-to-end solutions for Energy & Utilities, Telecommunications and Smart Cities.

We support and enable market leading enterprises operating in these sectors to transform their business models, processes and ICT architecture in order to achieve a competitive advantage and cost effectiveness by leveraging the power of the Internet of Things.

We have already been engaged by some of the largest global Energy & Utility Companies to support the design and implementation of most of the above new Business Models leveraging IoT technologies.

Sense Reply designs and implements new services and business processes enabling new Things-to-things, Human-to-things, AI-to-things business processes.

Approaching the business transformation through the Internet of Things requires a complex set of competencies, ranging from market insights and business models/ processes to IT architecture and IoT platforms, from sensors, gateways and communication networks to the ability to physically interface technical plants for monitoring and controlling events and parameters.



**Sense Reply focus for IOT-ENABLED TRANSFORMATION**

**Sense Reply focus for IOT TECHNOLOGY IMPLEMENTATION**

Sense Reply is composed of a team of expert professionals encompassing all the necessary skills to fully exploit the business potential of the Internet of Things.



# WHAT WE DO

## DEFINING IOT STRATEGY

Is your Company planning to disrupt its market, to develop a new service or product, to streamline an existing business process? How does the IoT support your corporate strategy? Is the IoT a comprehensive solution for your business model, or does it fit better for specific vertical applications or business cases? What are the potential benefits and is the IoT actually able to support your business growth?

Sense Reply can support client Companies by answering these questions and developing the **IoT Strategy aligned to its business needs.**

### OUR SERVICES

- Idea Generation and Strategic Planning
- ROI/TCO Analysis
- Use Cases Modelling
- IoT Governance Model
- IoT Platform Design

## ENABLING IOT PLATFORMS

The **Internet of Things (IoT)** is a network of dedicated physical objects (things) that rely on an embedded technology to communicate and sense or interact with their internal states or with the external environment.

New **Human-to-Things, Thing-to-Things and AI-to-Things** business processes are needed to enable the digital business experience, in turn requiring a wide range of components to securely and reliably interact: sensors, data gateways, WLANs, WANs, business/service applications, Machine Learning and Deep Learning components. Sense Reply has chosen **Amazon Web Services Solutions**, leveraging the best PaaS IoT components available on the market to support its customer companies in

successfully approaching the IoT transformation process. In order to support the implementation of the Human-to-Things processes, the **AWS PaaS** solution can be complemented with the **Salesforce.com SaaS**. Additionally, Sense Reply has also chosen to include in its IoT reference architecture the **Data Lake** components provided by AWS PaaS solutions and the Machine Learning component.

### OUR SERVICES

- IoT Platform Architecture Design
- IoT Platform Implementation
- Edge Computing Enablement
- Human-to-things Processes
- Data Lake, Machine Learning and Artificial Intelligence
- Cybersecurity

## EDGE COMPUTING

**Edge computing** pushes computing power, business logic, analytics and even machine learning capabilities to the edge of the networks, so that sensors, devices and data gateways can perform business functions themselves, or communicate with each other without the intervention of centralised applications. IoT platforms can be designed to easily govern and manage the distribution of Edge computing resources, while devices and data gateways can be designed, selected and engineered in order to provide the requested computational power, storage capacity and communication capabilities.

Sense Reply has designed and delivered Edge computing data gateway software for major global Energy companies to enable new, IoT-based capabilities for Energy Management, Asset Management and Generation Management, etc. Sense Reply collaborates with installation, commissioning and maintenance companies which can support companies in the deployment of any IoT components to the Edge.

### OUR SERVICES

- Edge Computing Architecture Design
- Edge and IoT Gateways SW Development
- HW Scouting and Selection

# IOT ACCELERATOR

Sense Reply experiences, competences and technology solutions represent an IoT Accelerator to speed up the delivery of Industrial IoT Solutions, allowing customers to reduce costs, time, risks of transforming their processes and designing and launching new products and services.

Sense Reply technology solutions are built on AWS capabilities, including *AWS IoT modules*, and is ready to be integrated with the new *AWS IoT SiteWise*, *AWS IoT Event* and *AWS IoT Things Graph*.

The IoT Accelerator relies on three main pillars: competences on IoT platform powered by a wide set of *AWS IoT* components, expertise in plant installations, devices and protocols integrations and cloud services; big data, AI and ML components based on *AWS SageMaker*; asset data management built leveraging new *AWS SiteWise* solution.

## BENEFITS FOR THE CUSTOMER

Most of the Companies approaching the true IoT Transformation wanted to rely on an engineered, fully automated and scalable IoT Platform, able to integrate with business solutions and to interact with analytics capabilities based on an IoT datalake. The market is not yet providing such kind of solutions ready-to-use. Coming to such high-end IoT Solution requires significant investments and strong skills.

Companies pains restraining IoT Transformation are:

- Complex architecture
- A wide variety of protocols and devices
- Significant investment
- Time to come to a complete platform
- Lack of internal competences
- Unclear benefits of a platform approach
- Integration effort for Verticals


Reply expertise brings the following benefits:

- Actual experience on designing and enabling end-to-end IoT driven business processes
- Proven capability of implementing IoT Platforms and IoT Datalakes
- Capability to deal with the most common protocols
- Acceleration of time-to-market and cost effectiveness



INTERNET OF ENERGY





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#### **PARTNERSHIPS**

Sense Reply is an **AWS Premier Consulting Partner** and a specialist in Internet of Things digital transformation with a deep competence on AWS PaaS Solutions.

Sense Reply is **Salesforce.com Platinum Consulting Partner** in Europe with a focus on IoT Cloud Solutions and on IoT Connector.