



# NEXT 4

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Getting IoT projects up-and-running, at scale

# About Net4



We are an IoT solutions provider



Manage an ecosystem of partners



IBM Business Partner



Channel partner intelligence



# The Barriers for Customers

## Siloed Solutions

Many IoT solutions are not designed to be part of an ecosystem

## Customer Engagement

It is difficult to get customer engagement with support from all the required stakeholders

## Complex Integrations

IoT projects often require complex and time consuming integrations

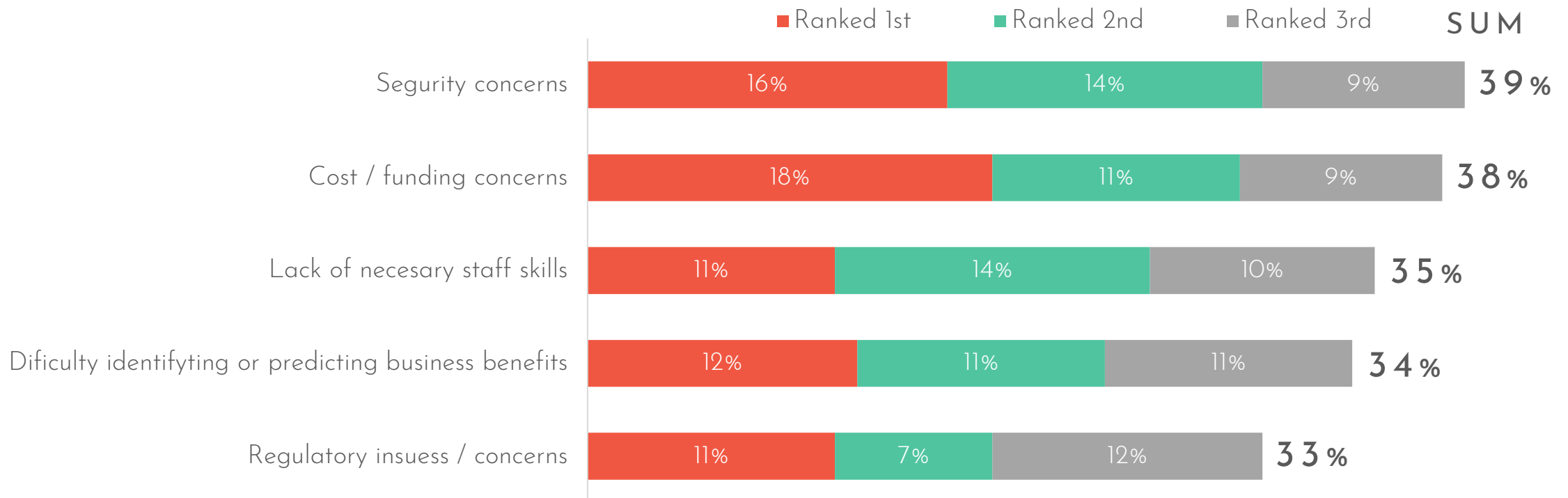
## Expensive Proof of Concept

Proving the solution, and more importantly, the business case is traditionally expensive and long winded

# The Barriers for Customers

Gartner Survey Results ▶ Barriers to IoT Success

Q ▶ Please rank the three greatest barriers to success of your organization's IoT activities?



n = 717

Source | 2017 Gartner IoT Strategies Survey **Gartner**

#GarnerSYM

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# The Barriers for Customers

Flexible



Highly flexible  
solutions

Simple



Simplified  
integration

Low Cost



Low cost, low risk  
proof of concept

Fast

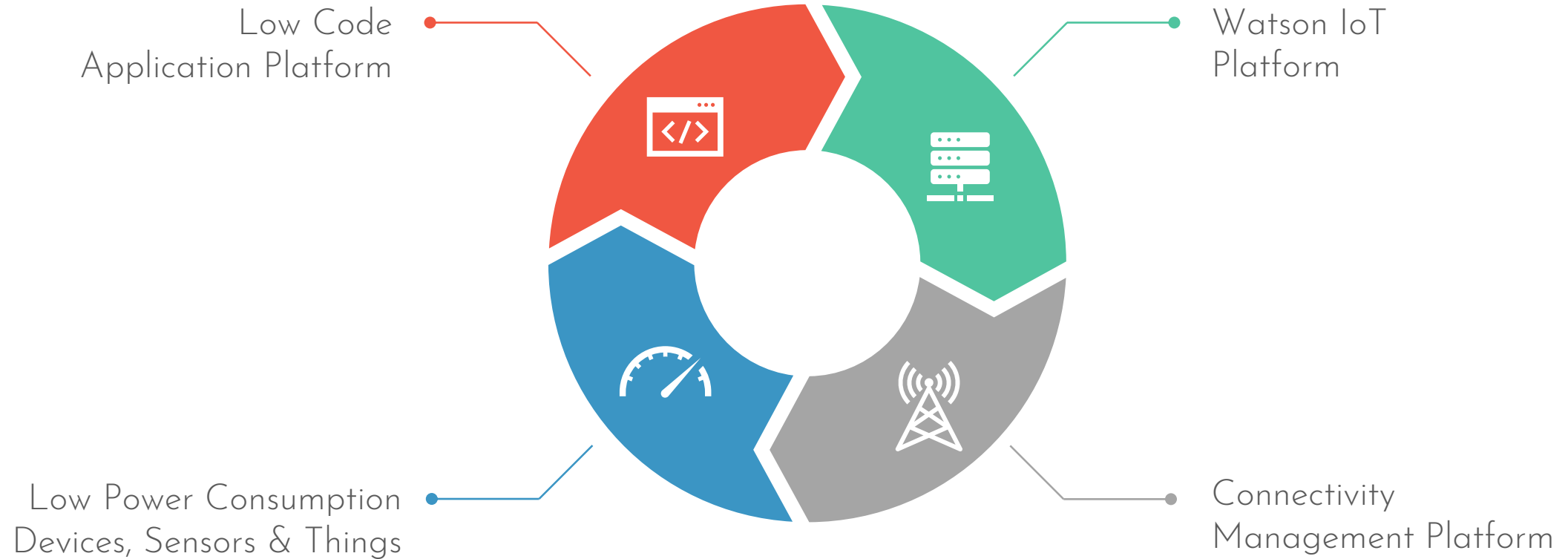


Rapidly deployable and  
repeatable solutions

**Net4 is not a traditional IBM partner**

We have approached the market in a different way, with a business model designed to suit the existing IT and tech distribution framework

# Key Elements



# Key Elements

Low Code Application Platform



“

**Thingable** is a self-service platform to create Industrial IoT Applications with no programming required; driving rapid time to value utilising embedded IBM IoT Solutions and an easy to use deployment environment. **Thingable** is device agnostic allowing sensors data of all types to be captures and utilized in one single platform.

”

Create applications in minutes!



Map



Alarms



Reports



Display



Helper



BI Viewer



Calendar



Synoptic Editor



SVG Dynamic Editor



App Builder



Device Manager



Users



Map Builder



Configures Services



Scada Database



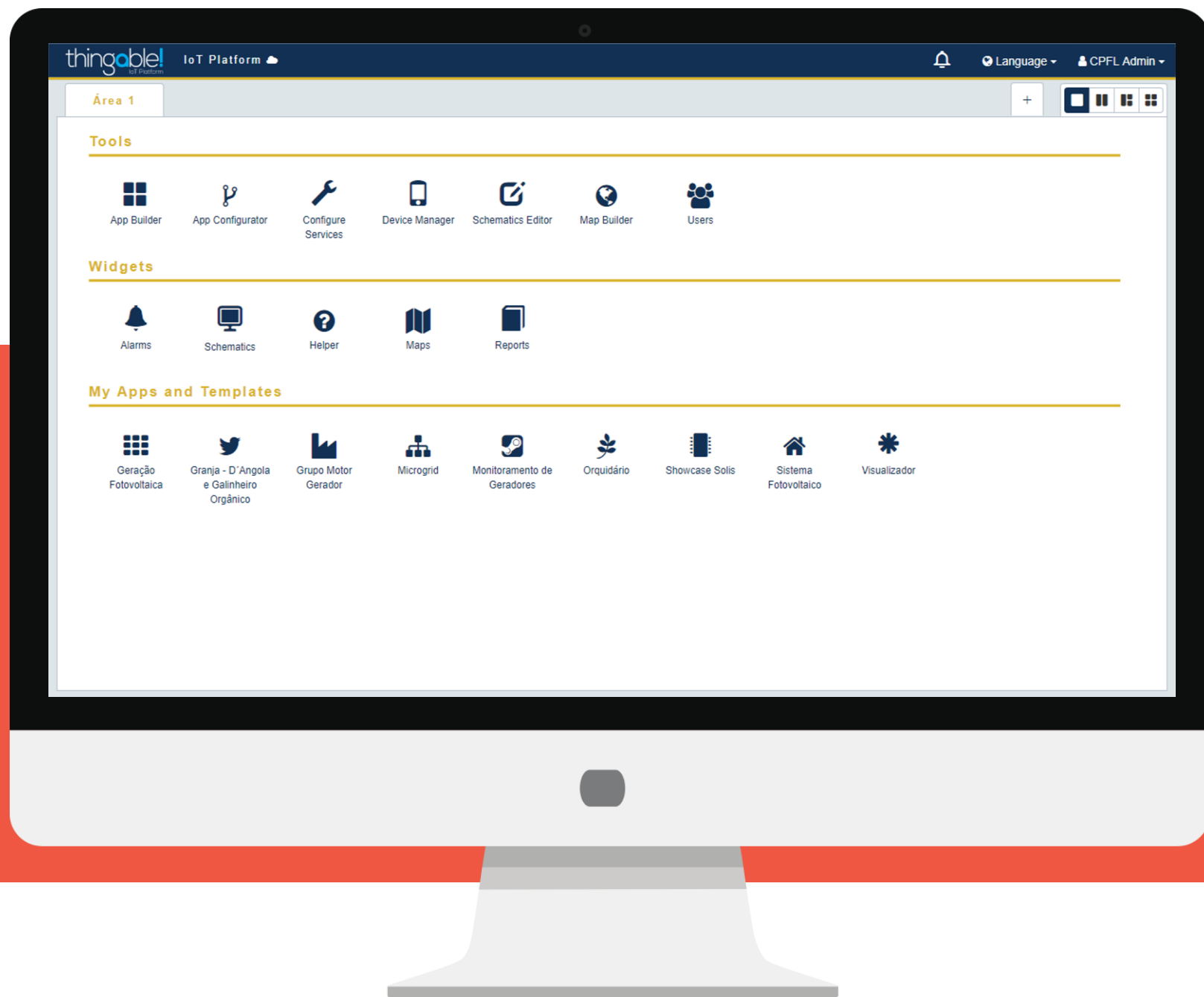
App configurator



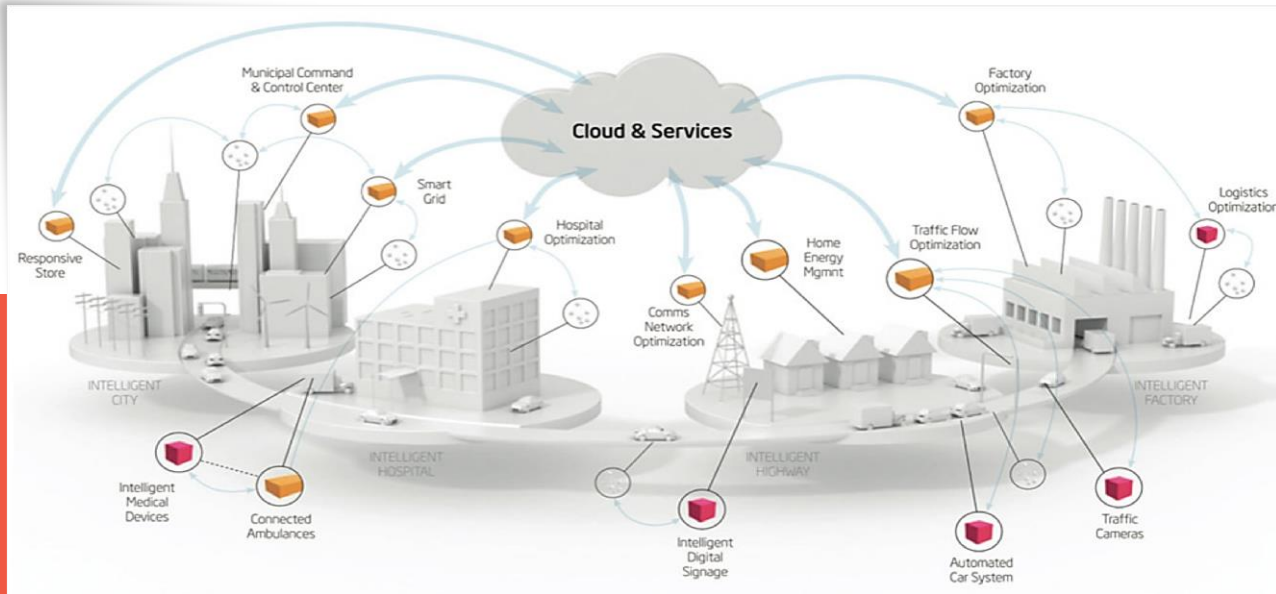
BI Builder



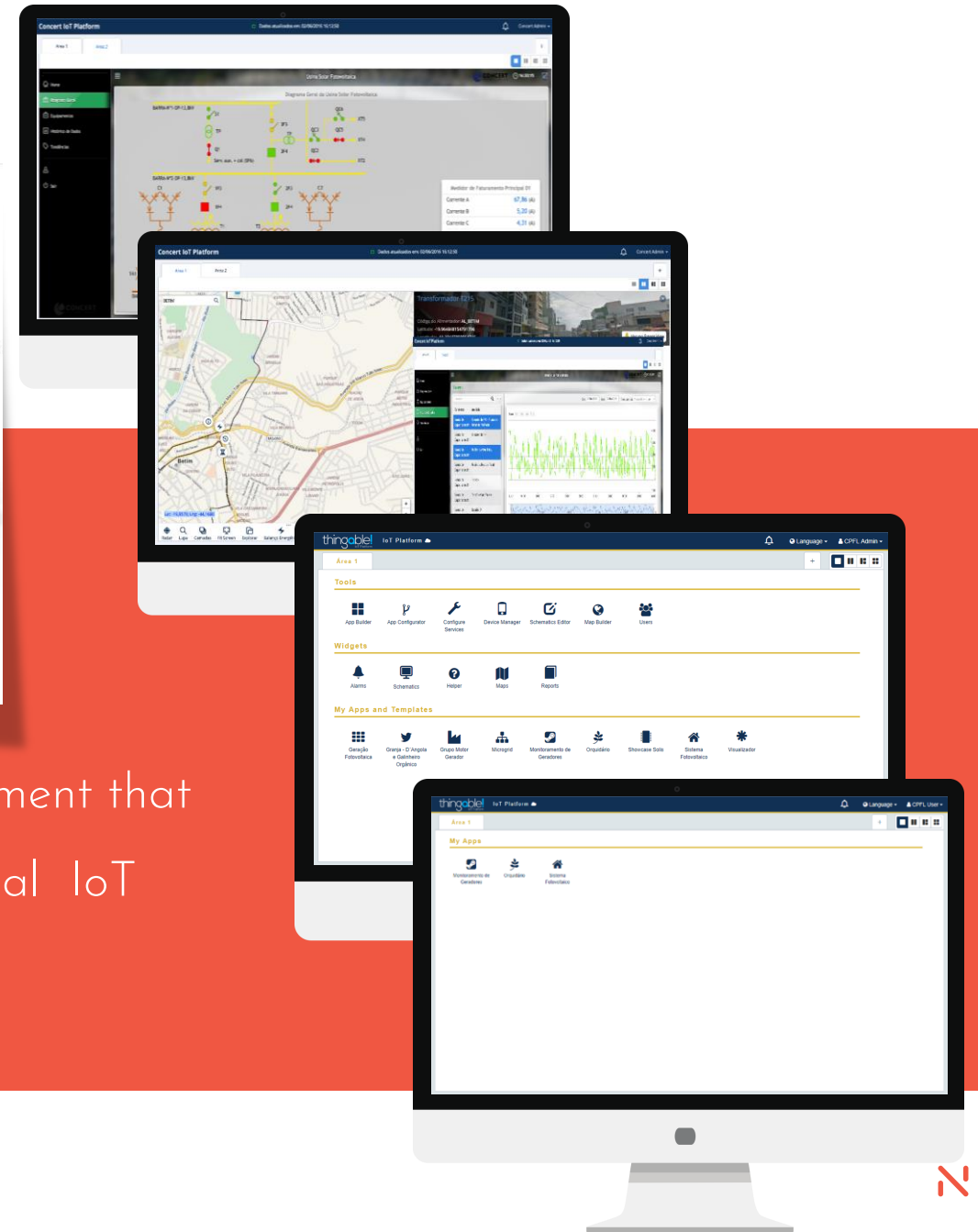
Cad View



Self service  
environment for step-  
by-step APP creation  
and IoT Devices  
connection.



Thingable provides tools and a cloud hosted environment that allow system integrators deploy end-to-end Industrial IoT applications in a matter of few hours.



# Key Elements

Watson for IoT

Security

Analytics

Management

Privacy

Control

IBM  
Watson  
IoT

By utilizing the Watson IoT platform at the core of our offering, Net4 ensures its cloud solutions meet the high levels of governance and security as well as using the latest IoT standards

This provides peace of mind for our customers, knowing that their IoT data is in safe hands.

# Key Elements

## Devices, Sensors & Things

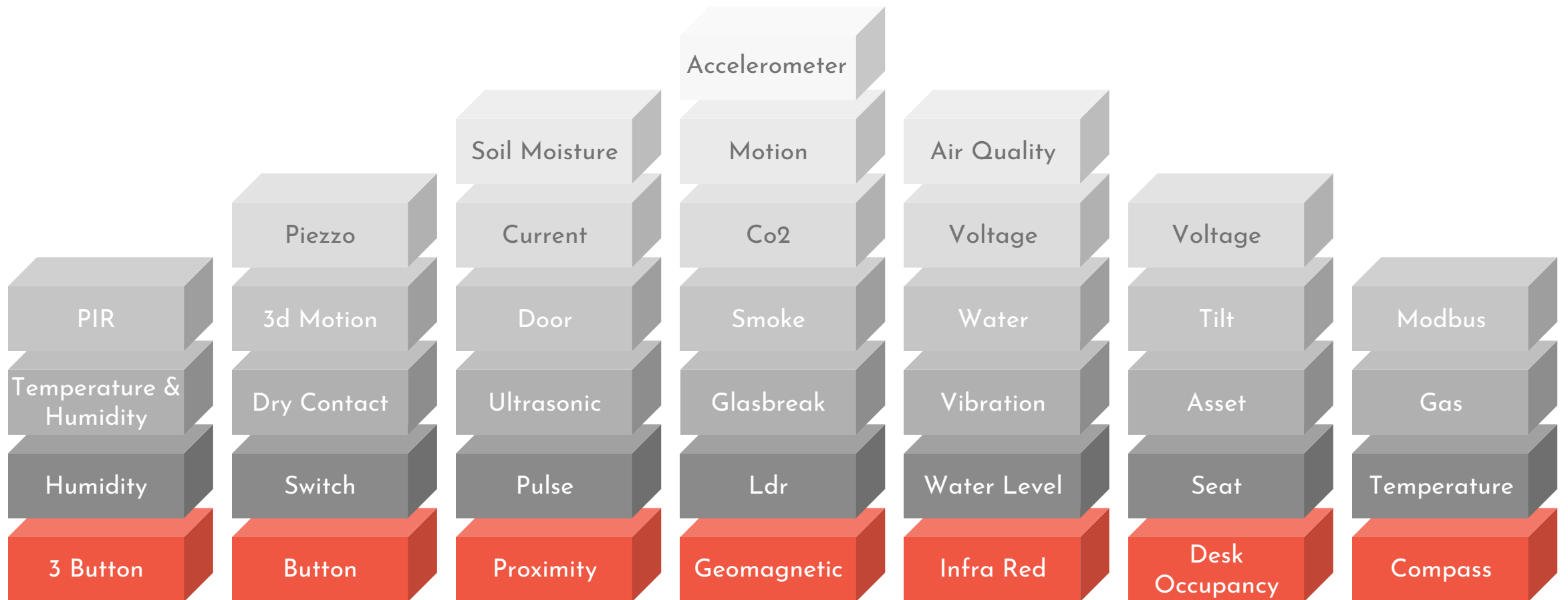
Our device partners provide Net4 with hundreds of IoT device options covering all of the key IoT use cases and allowing us to meet the individual project needs of our customers.



# Key Elements

## Sensors

There are more than 60 different GSM, Bluetooth 5.0, LoRa and NB-IoT, WiFi sensors and GPS trackers in portfolio.



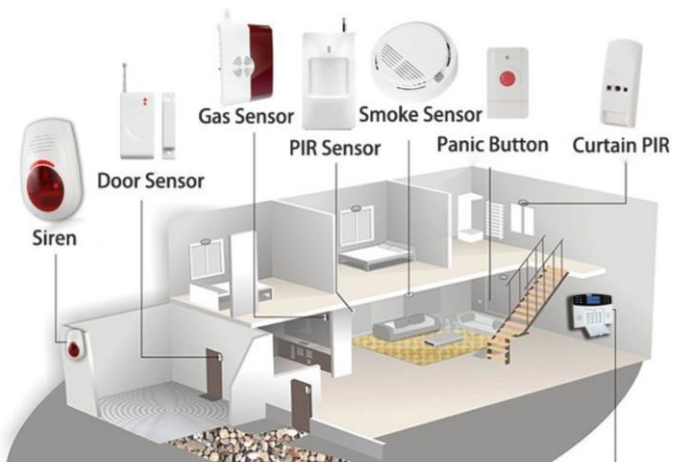
# NET 4

Smart City Solutions

Solutions & Products

# Smart Home

## Solutions & Products



## Where?

Residences

Homes

Schools

Universities

Offices

## What?

Enabling different sensors and automation products to be utilised in the home and linked to a central control platform allowing devices to be controlled through touch, speech and mobile applications.

Providing the ability to automate multiple devices to work on a single command or routine.

Monitoring internal devices that require servicing so predictive maintenance can be applied to extend the use life of machines or to alert when the humidity environment could indicate damp and lead to structural or cosmetic damage.

## How To?



- + Data is collected by deployed sensors embedded with connectivity technology.
- + Data from the sensors is periodically sent to a gateway.
- + Gateway sends information to network server where the data is processed, displayed and alerted on.

# Indoor Security

## Solutions & Products



### What?

LowPowerWAN-enabled security systems provide around-the-clock protection for residences by integrating traditional door and window alarm sensors with security cameras, intercoms and automatic door locks, all activated and operated by keychain sensors and smartphones.

Next-generation home security systems leverage LPWAN networks for long battery life, a network that can not be tampered with and the ability to integrate with WiFi networks to facilitate streaming video feeds.

### Where?

Residences

Homes

Schools

Universities

Offices

### How To?



- + Smart-enabled door, window or motion sensors activate an alarm when they detect a door or window being opened, or any motion in a secured room.
- + Wirelessly connected security camera can be triggered by sensors or started via smartphone.

# Early Fire Detection

## Solutions & Products



### What?

Every year fires cause roughly \$10 billion in property damage and injure or kill thousands of people. Commercial building fires can spread in a matter of minutes, so early detection is key to the safety of tenants and reducing the amount of property damage caused by fires. With a network of fire and smoke detecting sensors, firefighters can have a better sense of the magnitude of a fire and the direction it is headed.

By implementing a fire detection solution comprised of sensors and gateways embedded with LPWAN Technology and an intelligent low power wide area network based on the respective LPWAN protocol, firefighters can detect heat, smoke, gas, or flames associated with fires earlier and implement firefighting tactics or personnel more quickly to either prevent or reduce the impact of the fire.

### Where?

Hospitals  
Hotels  
Factories  
Oil Refinery  
GAS Stations  
Buildings

### How To?



- + Signs of fire (heat, smoke, gas, or flames) data collected by sensor embedded with NETOP LPWAN Technology.
- + Data from sensor is periodically sent to a LPWAN gateway or base station. Gateway or base station sends information to network server where the data is analyzed by an application server.
- + Application server sends alerts on fire or smoke to property managers or emergency personnel via mobile device or computer.

# Energy Management

## Solutions & Products



### What?

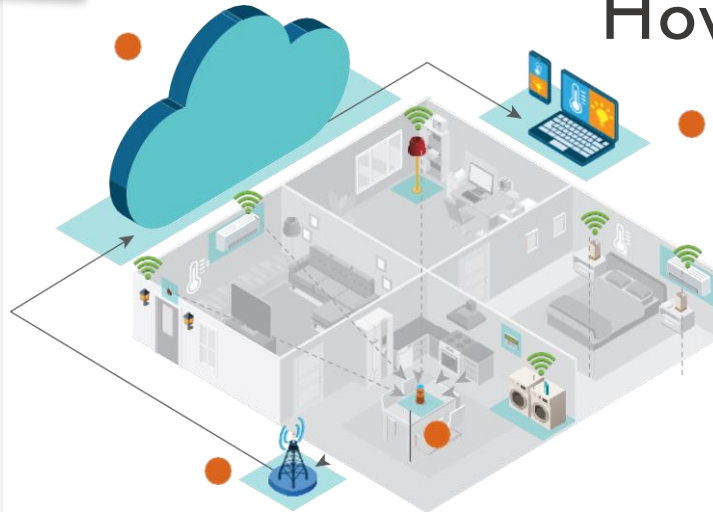
LPWAN devices and wireless RF technology is making it easy and economical to retrofit nearly any existing home, apartment or other structure with energy saving smart building systems. Designed to support robust, long-range wireless communications where Wi-Fi, ZigBee and other wireless technologies cannot.

LPWAN Technology was created specifically for applications that require competitively priced products to deliver extraordinary performance, reliability and service life. In this case, it embeds wireless sensors in a smart building so it can be remotely managed through LoRa-based gateways or public NB-IoT network.

### Where?

A smart outlet, which allows users to turn electronic and electrical devices (i.e. lamps, water heaters, humidifiers, water dispensers, etc.) on-or-off remotely or on a prefixed schedule in order to conserve energy and maximize savings.

### How To?



- + The smart home is equipped with a central control hub that communicates with embedded wireless sensors to relay data to smart thermostats, wireless sensors and lighting controllers.
- + The home's NETOP LPWAN-enabled smart thermostats can run pre-programmed energy saving schedules that allow an area to use less heating or cooling during times they are not expected to be occupied.

# Indoor Security

## Solutions & Products



### What?

LPWAN-enabled security systems provide around-the-clock protection for residences by integrating traditional door and window alarm sensors with security cameras, intercoms and automatic door locks, all activated and operated by keychain sensors and smartphones.

Next-generation home security systems leverage LPWAN networks for long battery life, a network that can not be tampered with and the ability to integrate with WiFi networks to facilitate streaming video feeds.

### Where?

Residences

Homes

Schools

Universities

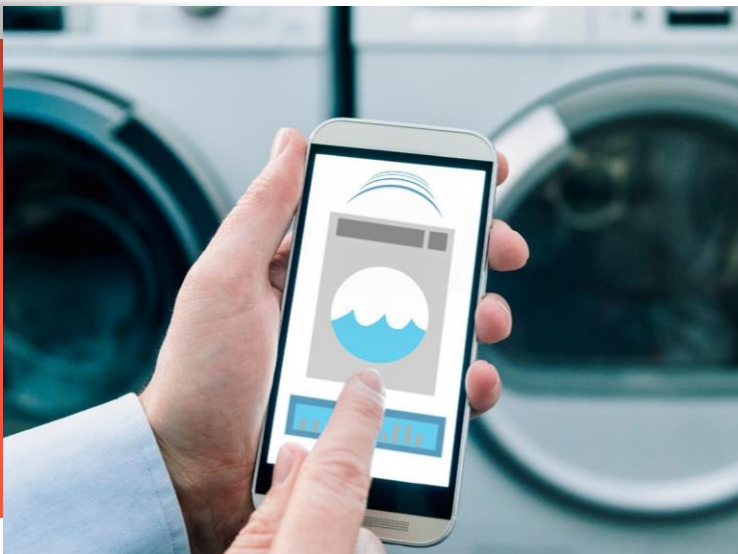
Offices

### How To?



- + LPWAN-enabled door, window or motion sensors activate an alarm when they detect a door or window being opened, or any motion in a secured room.
- + Wirelessly connected security camera can be triggered by sensors or started via smartphone.

## Solutions & Products



# What?

# Where?

## Residence

Hotels

## Shopping Centers

## Hospitals

## Stadiums

# How To?



- + Sensors' long-range, low-power LPWAN transceivers connect to IoT via either a LPWAN-based gateway or a public LPWAN network.

It transmits the data they collect to a Cloud-based water monitoring application.

# Fall Detection

## Solutions & Products



### What?

Reduce the time elderly remain on the floor after a fall which could lead to other medical conditions with severe consequences

By implementing a IoT-based fall detection solution comprised of sensors and gateways embedded with LPWAN Technology and an intelligent low power wide area network based on the respective LPWAN protocol, elderly people can live more full lives.

### Where?

For the elderly, falling and not being able to get up or summon help is a very scary prospect and happens frequently enough that it is a public health problem in certain communities.

Reduce the impact and consequences of falls among the elderly by detecting and reporting their occurrence.

### How To?



- + Fall/movement data collected by sensors embedded with LPWAN Technology. Data from all sensors is sent to a LPWAN gateway as person moves.
- + Gateway sends information to the Cloud where the data is analyzed by an application to determine what is normal and what is a fall.
- + Application server sends reports and alerts on the fall and location of the person to a computer or mobile device.

# Indoor Air Quality

## Solutions & Products



### What?

Sensors placed indoors can analyze indoor air quality, monitor pollutants to ensure proper and safe indoor air quality

By implementing an indoor air quality tracking monitoring solution comprised of sensors and gateways embedded with LPWAN Technology and an intelligent low power wide area and other facilities can analyze indoor air quality, monitor pollutants to ensure proper and safe indoor air quality.

### Where?

Residence

Hotels

Hospitals

Offices

### How To?



- + Indoor air quality data is collected by sensors embedded with NETOP LPWAN Technology. Data from the sensor is periodically sent to a LPWAN-based gateway.
- + Gateway sends information to network server where the data is analyzed by an application server that can be located in the building or in the Cloud Application server sends alerts based on environmental factors threshold as of CO2 levels to consumers or facility managers via mobile device or computer to guarantee indoor air quality.

# Gas Level Monitoring

## Solutions & Products



### What?

LPWAN devices and wireless RF technology are making it easy and affordable for smart metering to monitor and manage gas levels remotely. Self-reporting gas bottles can add intelligence, efficiency and higher-levels of service to the far-flung web of customers serviced by a typical bottled gas distributor.

Long-range, LPWAN-enabled wireless sensors can transform a conventional storage bottle or tank into a smart device, which detects its own state of fill and communicates the information to a Cloud-based inventory management and scheduling application.

### Where?

Stationary and portable gas bottles

### How To?



- + Ultrasonic level sensor, a micro-controller embedded LPWAN transceiver and a unique ID number.
- + The sensor module takes periodic measurements of the gas level and transmits them to the network of LPWAN-based gateways within its range (typically 20 Km).

# Water Flow Monitoring

## Solutions & Products



### What?

With the recent increase in extreme weather events, water is becoming scarcer and its usage is becoming a front page news topic. A great amount of water is being lost through leaks in the piping infrastructure. Water leakage and meter reading represent the two biggest operational costs for water utilities.

By implementing a smart water infrastructure, comprised of sensors, gateways, automated meter readers embedded with LPWAN technology, and an intelligent low-power, wide area network based on the LPWAN protocol, utility companies can dramatically reduce their operational costs.

### Where?

Leak detectors

Smart water meters

Fire hydrant monitors

Automatic water valve  
shut off systems

### How To?



- + Multiple sensors embedded with LPWAN Technology are placed on water pipes leading into homes or buildings.
- + If sensors detect a leak, they send an alert to a LPWAN-based gateway; meter readers can also send information to the gateway about irregular readings that may indicate a leak.
- + Gateway sends information to the network where the data is analyzed by an application server.

# Waste Management

## Solutions & Products



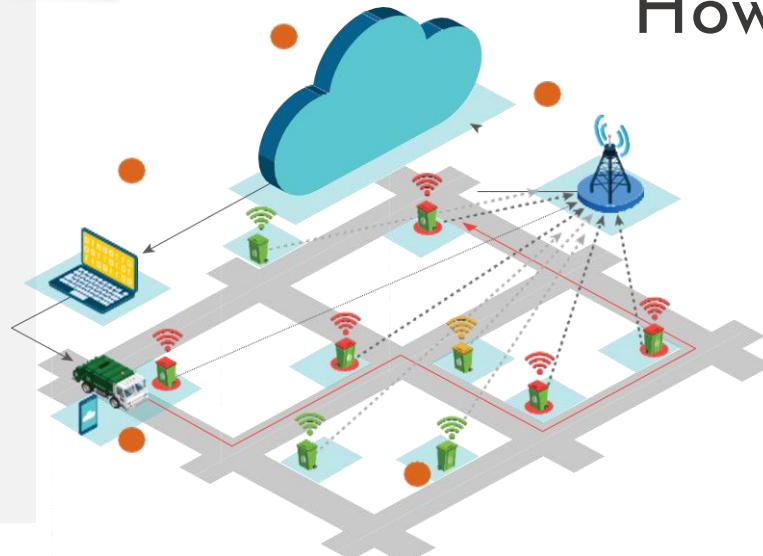
### What?

By implementing sensors embedded with LPWAN Technology into waste bins and using an intelligent low-power, wide area network based on the respective LPWAN protocol, cities can significantly reduce their operational costs by streamlining their waste collection routes and deploying trash bins only where they are necessary.

### Where?

Cities  
Municipalities  
Hospitals  
Factories  
Recycling facilities  
Bottle Banks  
Used Clothing Bins

### How To?



- + NETOP sensors embedded with LPWAN Technology are placed on waste bins. Sensors periodically report the fill rate of the waste bins.
- + Gateway sends information to the network where the data is analyzed by an application server.
- + Application server creates an optimized trash route indicating which waste bins need to be emptied.
- + The optimized route is sent to drivers via computer or mobile, so that they only empty full waste bins.

# Remote Smart Metering

## Solutions & Products



### What?

Remote Smart Metering is an efficient and cost-effective method of monitoring any consumable from domestic gas, water or electric usage to large scale grid management.

Take control of your energy consumption, cut costs, forecast spend and comply with regulation.

### Where?

Cities

Homes

Factories

Manufacturing Facilities

Universities

### How To?



- + Data is collected by sensors embedded with LPWAN Technology.
- + Data from the sensor is periodically sent to a LPWAN-based gateway.
- + Gateway sends information to network server where the data is analyzed by an application server that can be located in the building or in the Cloud Application server.

# Air Pollution

## Solutions & Products



### What?

The OECD (Organization for Economic Co-Operation and Development) estimates the economic cost of air pollution for society to be \$1.72T (in OECD member countries). Air pollution is responsible for a wide range of medical conditions. Current air pollution monitoring systems consist of expensive stations that measure a limited range of parameters. Because of the high cost of these stations, it is not practical for cities to measure air quality across a widespread area in detail. As a result, cities do not often have the type of measuring system in place to implement better air quality programs.

By implementing an air pollution monitoring solution comprised of sensors and gateways embedded with LPWAN Technology and an intelligent low-power, wide area network based on the respective LPWAN protocol, cities can better measure quality and provide the type of data necessary to drive change for their citizens.

### Where?

Cities  
Municipalities  
Roads and freeways  
Schools, buildings,  
downtown centers  
Industrial areas  
Parks, pools and other  
recreation areas



### How To?

- + NETOP air monitoring sensors embedded with LPWAN Technology are placed throughout the city.
- + Sensors send periodic measurements of air quality data to a gateway.
- + Gateway sends information to network where the data is analyzed by an application server which can identify zones of concern and provide recommendations.
- + Application server provides information regarding air quality levels throughout the city, including alerts and pollution patterns, via computer or mobile device

# Energy Management

## Solutions & Products



### What?

LPWAN devices and wireless RF technology is making it easy and economical to retrofit nearly any existing home, apartment or other structure with energy saving smart building systems. Designed to support robust, long-range wireless communications where Wi-Fi, ZigBee and other wireless technologies cannot.

LPWAN Technology was created specifically for applications that require competitively priced products to deliver extraordinary performance, reliability and service life. In this case, it embeds wireless sensors in a smart building so it can be remotely managed through LoRa-based gateways or public NB-IoT network.

### Where?

A smart outlet, which allows users to turn electronic and electrical devices (i.e. lamps, water heaters, humidifiers, water dispensers, etc) on-or-off remotely or on a prefixed schedule in order to conserve energy and maximize savings.

### How To?



- + The smart home is equipped with a central control hub that communicates with embedded wireless sensors to relay data to smart thermostats, wireless sensors and lighting controllers.
- + The home's NETOP LPWAN-enabled smart thermostats can run pre-programmed energy saving schedules that allow an area to use less heating or cooling during times they are not expected to be occupied.

# NET 4

Industrial Solutions  
Solutions & Products

# Industrial Monitoring

## Solutions & Products



### What?

Industrial monitoring is a key element of industrial production processes. Alloy melting quality in the automotive industry, foil thermoforming in the plastic industry, or glass syringe production in the life science industry requires temperature measurement across the entire production line. An undetected anomaly in such production processes could cost millions of dollars.

By implementing an industrial temperature monitoring system comprised of sensors and gateways embedded with NETOP Technology and an intelligent low power wide area network based on the respective LPWAN protocol, manufacturers can more tightly control the quality of their production process.

### Where?

Alloy melting (automotive)  
Foil thermoforming (plastics)  
Glass syringe production (life sciences)  
Conveyor Belt systems  
Electrical, vibration, sound, temperature

### How To?



- + NETOP Technology enables connectivity, real-time analytics, reporting and additional functions such as geolocation.
- + Sensors are placed throughout a manufacturing plant to monitor the values of different processes.
- + Sensors periodically measure all needed values and send the data to the cloud.

# Liquid Presence Detection

## Solutions & Products



### What?

Liquid presence detection systems are commonly used to monitor leaks, but in many cases, they are placed at long intervals along a pipeline due to the high cost of deployment. But internet of things (IoT) sensors and networks promise to cost-effectively add more sensors to these systems to detect leaks faster and minimize any damage or losses.

By implementing a liquid presence detection systems comprised of sensors and gateways embedded with LPWAN Technology, and an intelligent low power wide area network based on the respective LPWAN protocol, pipeline operators and industrial facility managers get the long-range wireless network coverage they need combined with the long battery life required for remote sensors.

### Where?

LPWAN-based liquid presence systems help organizations to ensure the integrity of liquid transport and processing systems minimizing damage and losses from leakage.

### How To?



- + Internally-based and externally-based sensors on above-ground systems monitor the presence of liquid outside of the system to pinpoint leakage.
- + Sensors use NETOP LPWAN to communicate and send data to LPWAN-based gateway.
- + Gateway sends information to the Cloud-based server where the data is analyzed by an application server.
- + Application server sends alerts on potential leakage incidents to system operators via mobile device.

# Tank Level Monitoring

## Solutions & Products



### What?

Fuel dealers use supply tanks to store a wide variety of compounds, including heating oil, gas, propane, and water. The supply tanks need to be refilled when they are low to allow un-interrupted operations.

By implementing a smart tank level monitoring system, comprised of sensors and gateways embedded with LPWAN Technology and an intelligent low power, wide area network based on the respective LPWAN protocol, fuel dealers can optimize their deliveries and decrease their discretionary spending on fuel delivery by up to 80%.

### Where?

Fuel tanks

Heating oil tanks

Water tanks

Milk Tanks

### How To?



- + NETOP Technology enables connectivity, real-time analytics, reporting, and additional functions such as geolocation.
- + Sensors are placed throughout a manufacturing plant to monitor the values of different processes.
- + Sensors periodically measure all needed values and send the data to the cloud.

# Industrial Remote Monitoring

## Solutions & Products



### Where?

Manufacturing  
Facilities



### What?

Reduce maintenance trips, improve customer service and get full control of your industrial machinery and devices at anytime from anyplace.

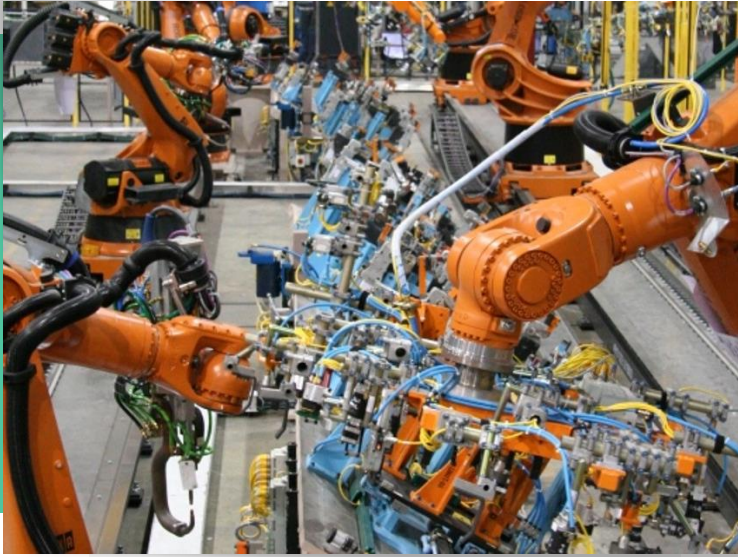
Online access to energy consumption, performance levels etc. Facilitate energy audits – get statistics and reports on historical consumption. Get alarms whenever certain levels are reached, if the machine has stopped etc.

### How To?

- + Data is collected by NETOP sensors embedded with LPWAN Technology. Data from the sensors is periodically sent to a LPWAN-based gateway.
- + Gateway sends information to network server where the data is analyzed by an application server that can be located in the building or in the Cloud Application server.

# Predictive Maintenance

## Solutions & Products



### Where?

Manufacturing Facilities

Fabrics

Elevators

Power Generators

### What?

Identify potential equipment problems before they occur by monitoring temperature, power, sound, and other elements using NETOP sensors embedded with LPWAN Technology.

By implementing a predictive maintenance solution comprised of sensors and gateways embedded with LPWAN Technology and an intelligent low power wide area network based on the respective LPWAN protocol, information on equipment temperature, power, sound, and more can be gathered. An example of this is the monitoring of ventilation fan motors which are operating almost 24 hours a day. Different mechanical harmonics as they age are well identified, and by using a LPWAN-based sensor and modem, the health of the motor and its life cycle position can be communicated to alert the need for replacement of the motor.

### How To?



- + Equipment status data collected by a sensor embedded with NETOP LPWAN Technology. Data from sensor is periodically sent to a LPWAN-based gateway or base station.
- + Gateway sends information to network server where the data is analyzed by an application server.
- + Application server sends alerts to facility manager via mobile device or computer.

# NET 4

Transport Solutions

Solutions & Products

# Fleet Tracking

## Solutions & Products



### What?

Vehicle fleets of trucks, cars, ships, trains, planes, etc. are the lifeblood of many businesses that need to ship products or provide transportation services.

By implementing a fleet tracking solution comprised of sensors and gateways embedded with LPWAN Technology and an intelligent low power wide area network based on the respective LPWAN protocol, organizations can help improve their logistics, thus reducing costs and improving transportation timeliness.

### Where?

Cars

Trains

Ships

Planes

Trucks

Buses

### How To?



- + Location data collected by NETOP sensors embedded with LPWAN Technology. Data from all sensors is periodically sent to a LPWAN based gateway as the vehicle moves.
- + Gateway sends information to network server where speed, location, direction, and other variables are collected and sent to a specific application server in the Cloud.
- + Application server sends reports and alerts on movement and safety of the vehicle to driver or supervisor via computer or mobile device.

# Vehicles & Cargo Tracking

## Solutions & Products



### What?

Large, high-value assets like shipping containers full of cargo, capital equipment and the vehicles that transport them are vulnerable to theft whenever they are in transit. Similarly, the large vehicles used by agriculture, construction, mining, and other industries present tempting targets to would-be thieves when they are left unattended in remote locations.

A LPWAN-enabled gateway can communicate with any asset equipped with a low-power radio that supports the LPWAN protocol. When embedded within a sensor module, it enables remote monitoring of conditions such as temperature, shock, vibration, or tampering. It is also possible to determine a LPWAN-equipped asset's location and direction of travel using radio triangulation.

### Where?

All Logistics  
Operations

### How To?



- + Cargo containers, vehicles and other high-value assets are equipped with a smart, self-powered NETOP sensor module that can detect unexpected door openings, or other signs of tampering.
- + The sensor module's embedded LPWAN transceiver communicates with LPWAN-based gateways using the LPWAN protocol.
- + The sensor module's LPWAN transceiver periodically transmits its status information to all LPWAN-based gateways within its range (typically 5-30 km's).
- + The gateways forward the packets, and a precise timestamp (based on time of arrival) to a network server in the Cloud.

# Shipment Quality

## Solutions & Products



### What?

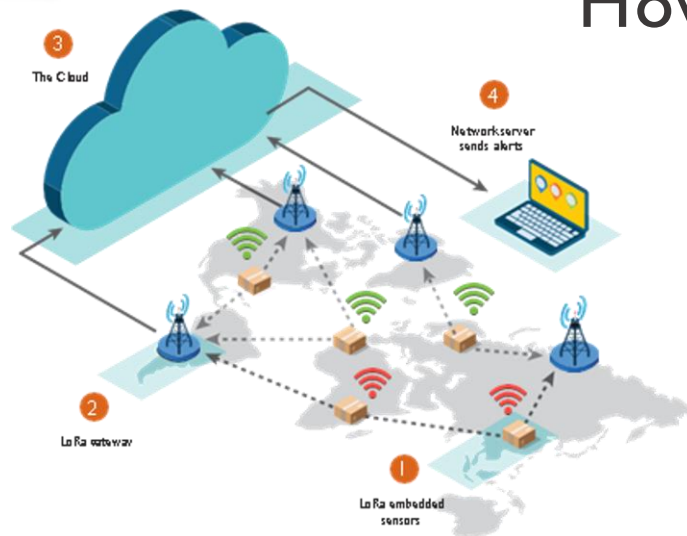
There are many tens of millions of packages and documents shipped daily to countries around the globe. Keeping track of these shipments is a tremendous undertaking. In addition, shipping companies and retailers need to be able to track the condition of temperature-sensitive or fragile items to make sure they arrive safely.

Sensors gather information on location including temperature, humidity levels, drops, rapid movement, or package openings to ensure safety and quality of sensitive materials.

### Where?

Cold Chain  
Tracking & All  
Logistics  
Operations

### How To?



- + NETOP sensors affixed to packages and embedded with LPWAN Technology collect movement, location data and in special cases temperature or package opening data if the package is sensitive to environment or has a high value. LPWAN-based gateways collect data that is periodically transmitted by the sensors.
- + Gateway sends information to Cloud server where the data is analyzed by an application server.
- + Application server sends alerts to shipping company or retailer via mobile device or computer.

# Container Locator

## Solutions & Products



### What?

Container Locator is a LPWAN supported IoT device which can find exactly where your storage containers are located. It is plug & sense. Easy to deploy and install on huge container areas.

You can easily find the location of your container on a customized map, and easily track movements.

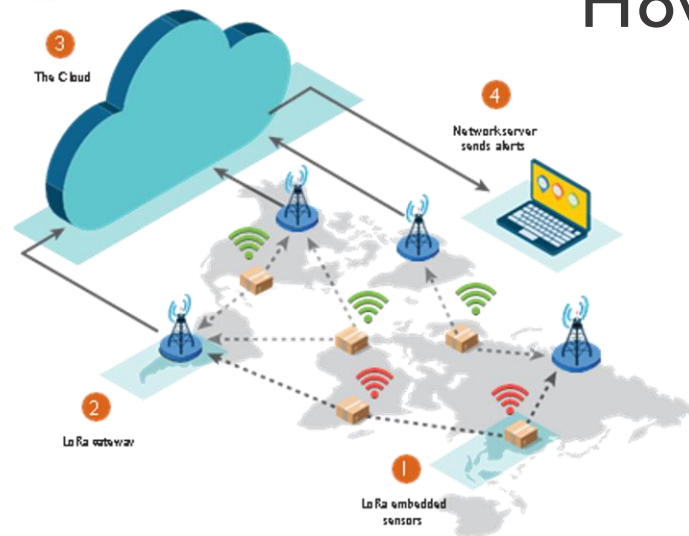
### Where?

Shipment Facilities

Container Warehouses

Harbors

### How To?



- + Data is collected by NETOP sensors embedded with LPWAN Technology.
- + Data from the sensors is periodically sent to a LPWAN-based gateway.
- + Gateway sends information to network server where the data is analyzed by an application server that can be located in Cloud Application server.

# NET 4

Medical  
Solutions & Products

# Container Locator

## Solutions & Products



### What?

If a medical refrigerator loses power after hours or if employees have accidentally altered the refrigerator temperature, how would the facility know and determine the risk to the contents inside?

By implementing a medical refrigerator monitoring solution comprised of sensors embedded with LPWAN Technology and an intelligent low power wide area network based on the respective LPWAN protocol, medical facilities and pharmacies can monitor whether a refrigerator is failing or determine for how long it has lost power and if the temperature is still appropriate for the contents inside, saving the facility from unnecessary costs and helping to keep patients safe.

### Where?

Hospitals

Pharmacies

Chemistry Laboratories

### How To?



- + Power and temperature data collected by sensors embedded with NETOP LPWAN Technology.
- + Data from the sensor is periodically sent to a LPWAN-based gateway.
- + Gateway sends information to network server where the data is analyzed by an application server.
- + Application server sends alerts on medical refrigerator status to facility managers via mobile device or computer.

NET 4

Smart Office  
Solutions & Products

# Workspace Utilization

## Solutions & Products



### What?

Workspace utilization sensors are designed and built specific to the task of accurately and efficiently monitoring workspace utilization in today's office Environment. Based on passive data collection technology (PIR), occupancy sensors are triggered by both motion and heat, ensuring that the system is ultra-sensitive, yet ultra-reliable when it comes to tracking real-time 1:1 space utilization

Share your location with your colleagues, track personnel or equipment, reserve available workstations or meeting rooms, communicate and organize collaborative meetups with colleague and more.

### Where?

Offices

Schools

Workspace Locations

Connected Spaces

Space Utilizations

Meeting Room Monitoring

Desk Occupancy



### How To?

- + Data is collected by NETOP sensors embedded with LPWAN Technology.
- + Data from the sensors is periodically sent to a LPWAN-based gateway.
- + Gateway sends information to network server where the data is analyzed by an application server that can be located in offices Cloud Application server.

# NET 4

Food and Drink  
Solutions & Products

# Connected Cooler

## Solutions & Products



### What?

Retail companies spend millions – sometimes hundreds of millions – of euros into retail display coolers for better product placement and improved quality. Coolers are typically provided to stores free of charge with the promise that they will increase sales to cover the investment. The challenge is that after the cabinets are delivered, the owner has very little visibility and control over these assets.

NETOP Connected Cooler can give you visibility of your coolers almost globally. You'll know if they're fully stocked, if they're at the right temperature and even if they're not where they should be.

### Where?

Retail

Supermarkets

Shopping Malls

Many Grocery Stores

### How To?



- + Coolers are equipped with NETOP temperature and asset sensors embedded with LPWAN Technology.
- + Data from the sensor is periodically sent to a LPWAN-based gateway.
- + Gateway sends information to network server and the end user web application.

A person wearing a grey suit jacket, a black shirt, and a black tie is holding a black tablet. Their right hand is touching the screen of the tablet. The background is white.

# NET 4

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Thank you