

THINGSTALK

Asset tracking

ThingsTalk

Contents

Asset Tracking	3
ThingsTalk platform	5
ThingsTalk as a platform for Asset Tracking enables	8
Advantages of the ThingsTalk platform	11
Technologies	12
Operational excellence	15
Supervisory/administrative center	15
User experience	15
Integrations	17
Data security and quality	17
Implementation models	17
About Comping	19

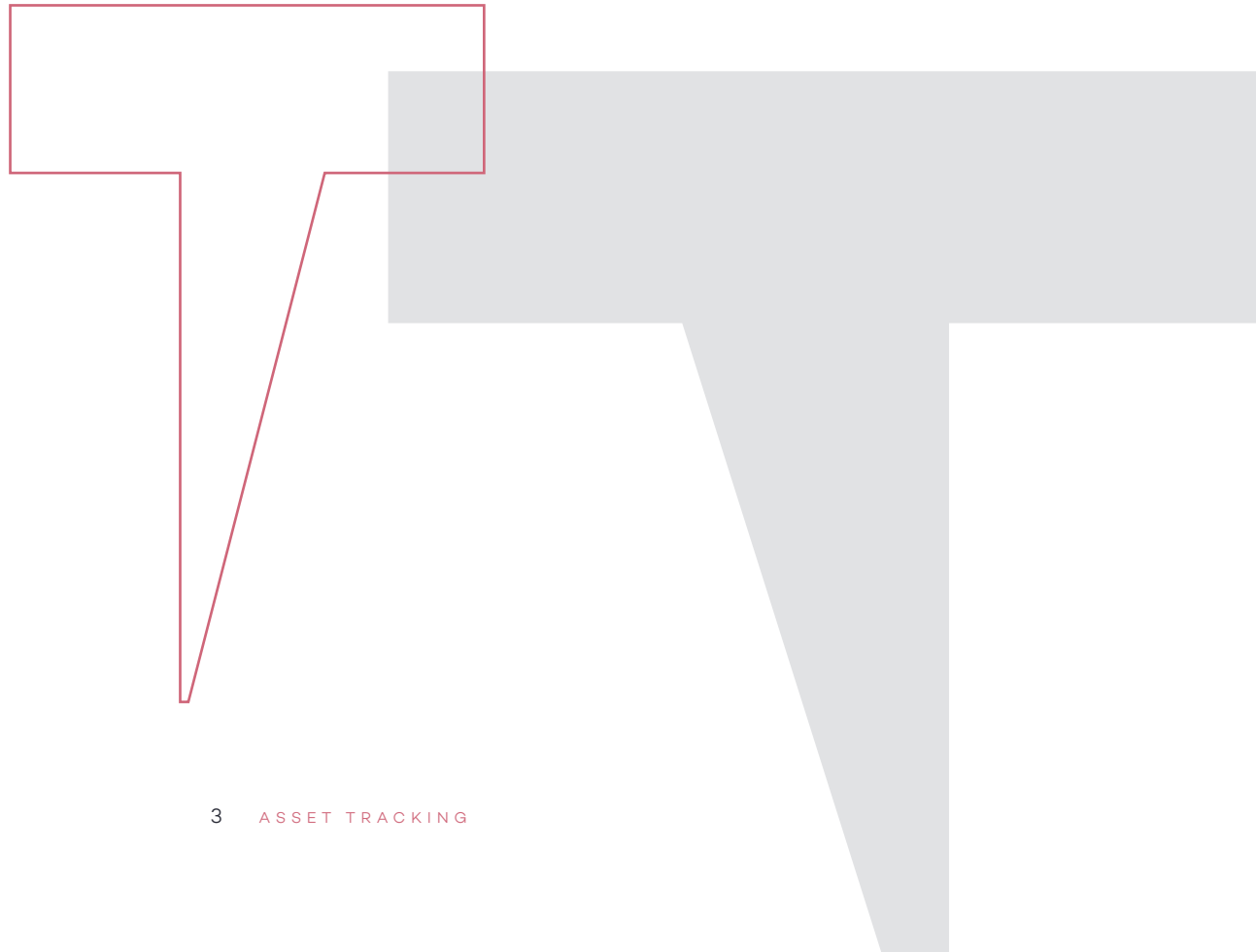
Asset tracking

Assets that have value or bring value to the company are tracked in modern businesses. It is a necessity, especially in providing services. Moreover, having timely information about the state and location of assets forms the basis of service availability.

Successful asset monitoring requires the right solution that is applicable in various scenarios of asset use and is quickly and easily adaptable to multiple business needs.

ThingsTalk is a such solution. It enables mobility, asset monitoring and easy migration to other communication protocols. In addition, ThingsTalk easily integrates with services of third-party providers.

The platform provides information on asset location, condition and usage, enabling automated monitoring and continuous quality improvement.



ThingsTalk is::

Scalable — easily adapts to business growth without compromising performance.

Responsive — the data generated by the platform is easily accessible and conveniently displayed, regardless of the device and at any time - between a few minutes or hours - all depending on needs.

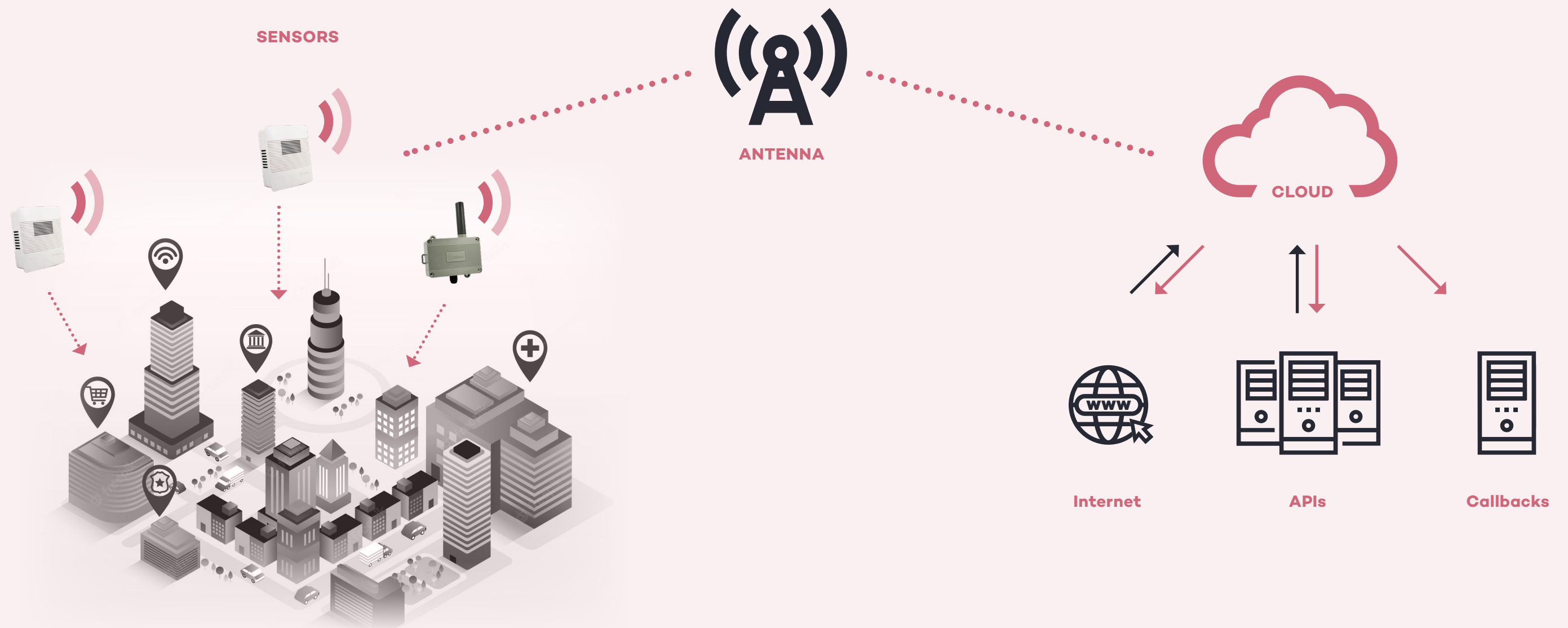
Reliable — In complex solutions certain data must have the required quality in order to be clearly presented on an interface display. Automatic data control solves this quality issue.

Integrable — The ThingsTalk platform sends data to specialized applications, such as inventory management software, ERP systems, Business Intelligence solutions, and other software used by today's businesses. There is no point in keeping information about where devices and equipment are located, and where shipments we are sending are headed in one separate application. The integrability of data is the main advantage of asset-tracking solutions. This is why the proper architectural choice is crucial.

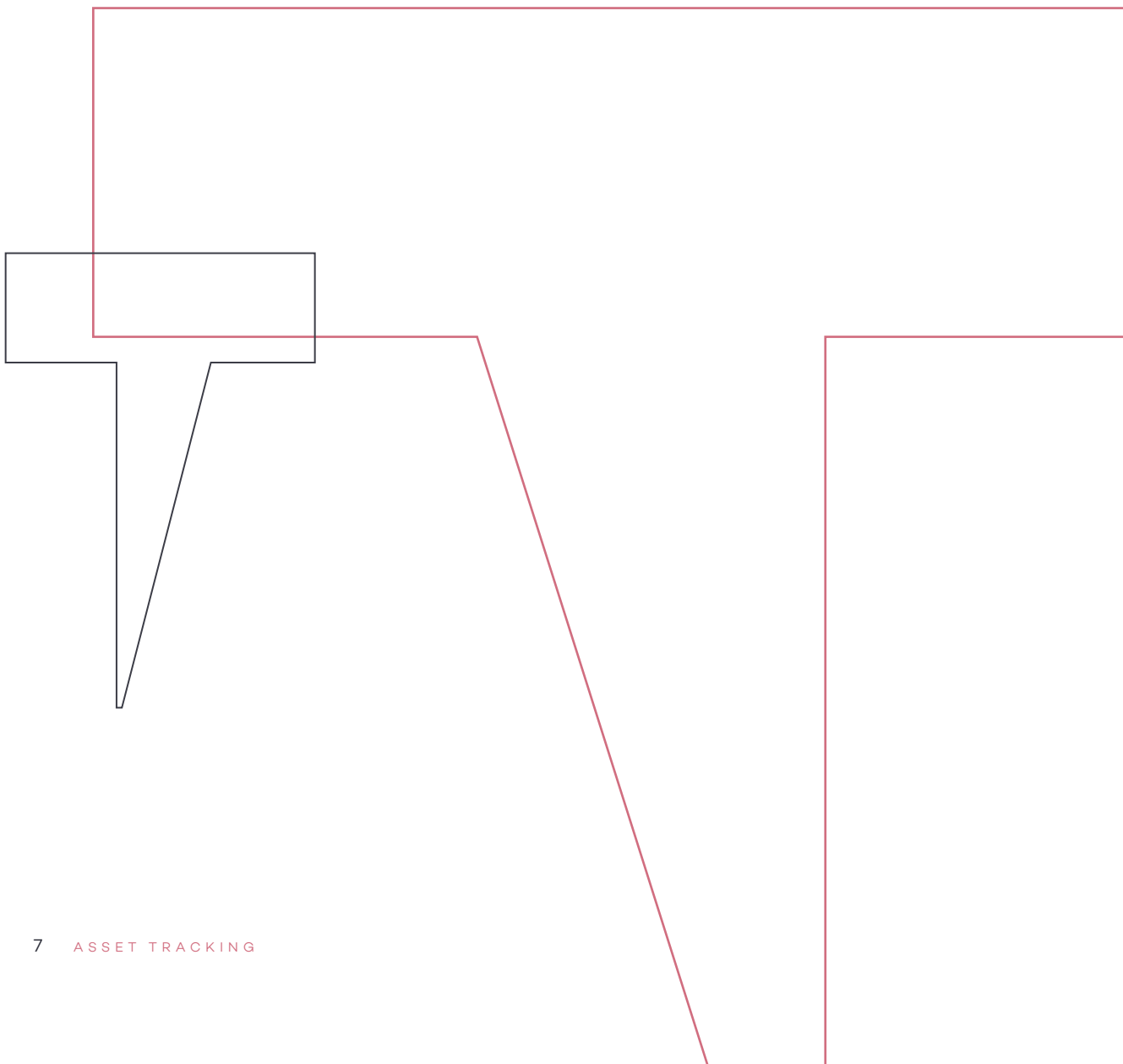
Vertically integrated — ThingsTalk is a flexible solution built on a microservice platform, offering easy service development and multiple usage models. The supplier controls the platform, the infrastructure and the SIGFOX network, while sensors and network protocols are chosen by users - with our advisory and assistance. With ThingsTalk, users are getting a commercial service with simple terms of use and transparent business rules. During implementation, we consult our clients on additional tools they may need, and that we have in our portfolio. The service is regularly maintained, improved and upgraded with new functionalities, all according to ISO20000 standards and the service development plan (service roadmap).

ThingsTalk platform

Comping's ThingsTalk platform is available as a digital service. It collects and processes data coming from IoT networks and turns it into new insights that lead to better business decisions. The ThingsTalk platform is compatible with all IoT networks and service providers and is simple to manage. It enables quick and easy use of information collected by smart devices.



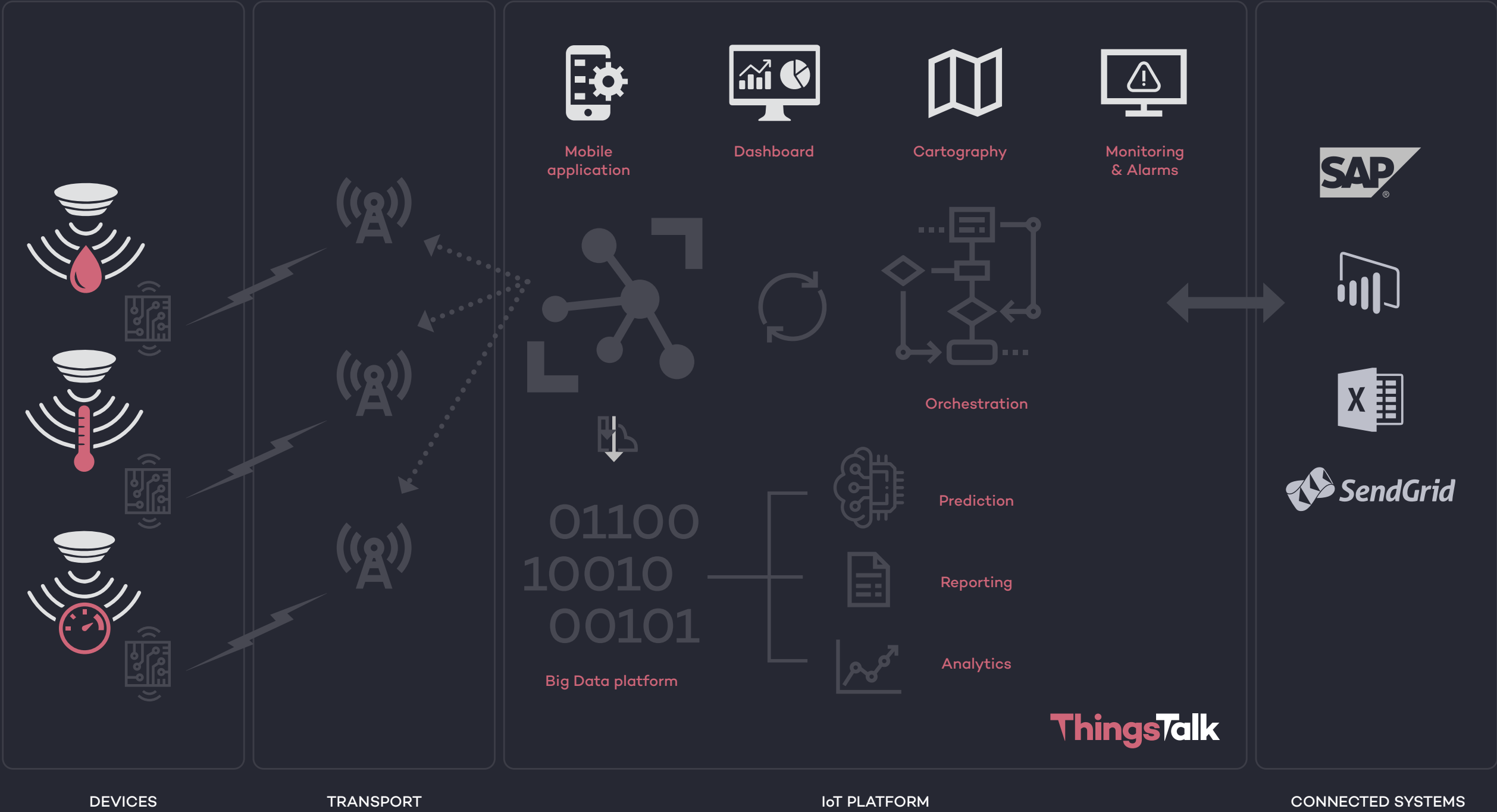
On a technical level, asset tracking assumes the existence of sensors attached to the objects monitored. Sensors periodically report the object's location and other data, such as acceleration (motion or impact detection), temperature and ambient humidity, along with other data. Information is available anytime, so the company can track objects and get insight into all business assets. Optimization is the primary goal of asset tracking. Logistics is the business area where asset tracking is primarily used. However, it is applicable in all companies that require continuous monitoring of movable assets.



ThingsTalk, as a platform for asset tracking, enables:

- Continuous monitoring of all asset parameters
- Asset location reporting, collectively or individually
- Displaying asset location on the map
- Analysis of equipment usage according to geolocation
- Objects and equipment reporting based on predefined parameters (movement, temperature, location)
- Reporting on asset's communication status (whether a communications link is up or not)
- Planning of asset needs based on their amount, location and movement routes
- Raising alerts based on predefined parameters (remaining too long in one location, unauthorized removal of sensors, etc.)
- Integration with external systems
- (ERP, BI, inventory/asset management and other software)

The ThingsTalk platform is network agnostic and is integrable with all relevant IoT network standards. It automatically collects information from all sources and constantly monitors assets through a specialized application for portable devices.

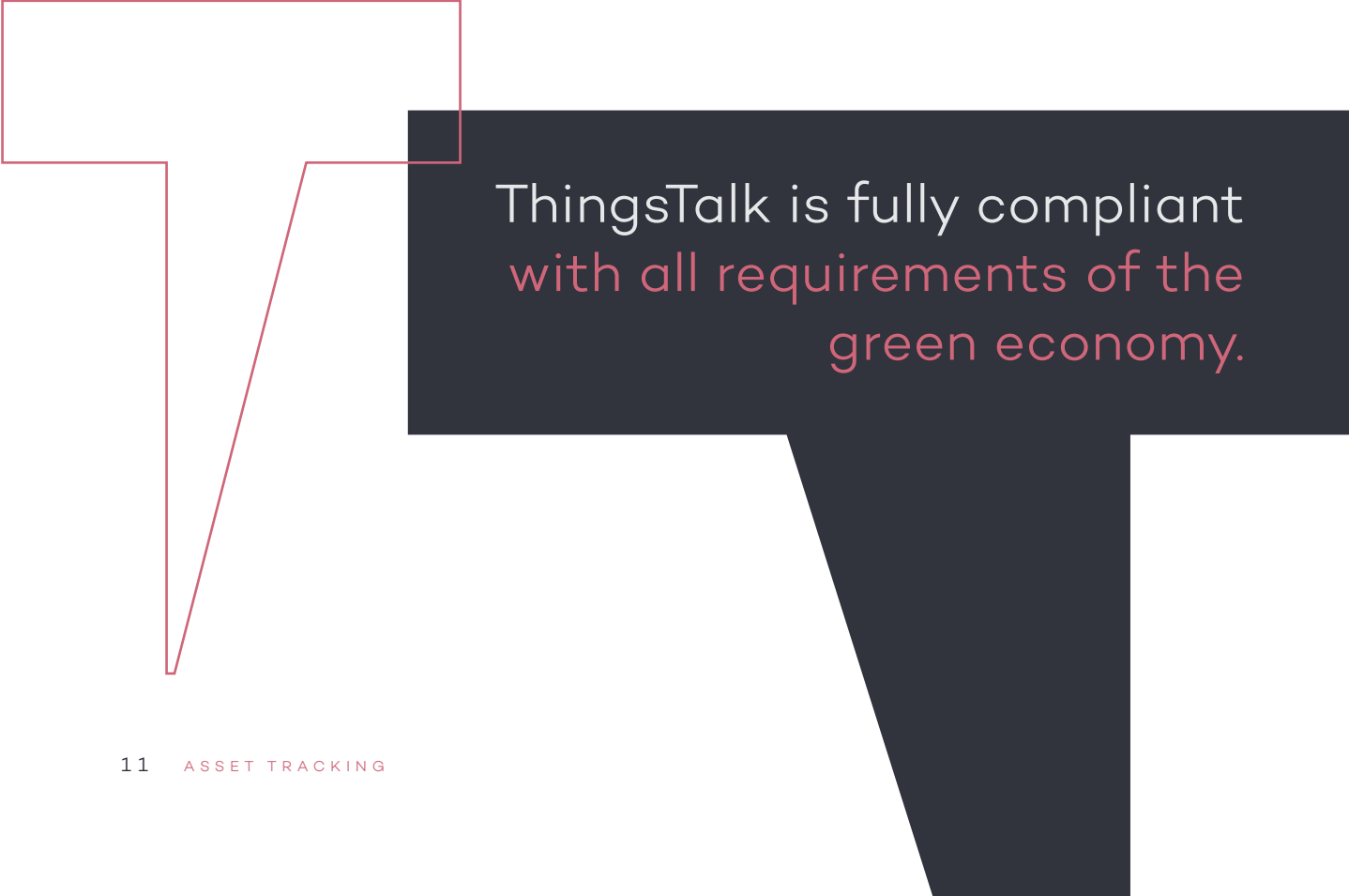


ThingsTalk platform advantages

With Comping's IoT platform you can quickly improve your business by providing new services or boosting the existing offer, reduce costs by applying better processes, modernize your business model and create entirely new sources of income. In addition, ThingsTalk allows you to communicate better with your customers:

- **through easier acquisition of new ones and raising the quality of experience of those who already do business with you.**
- **through monetization of data offered via digital services on the Internet or the sale of advertising space.**

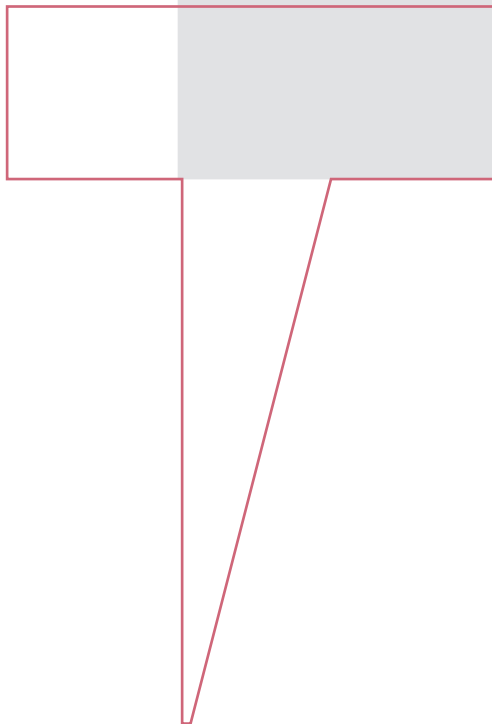
Let us emphasize the following: the ThingsTalk platform is flexible and scalable and ensures that the company is prepared for market changes. And one more thing: ThingsTalk is fully compliant with all requirements of the green economy.

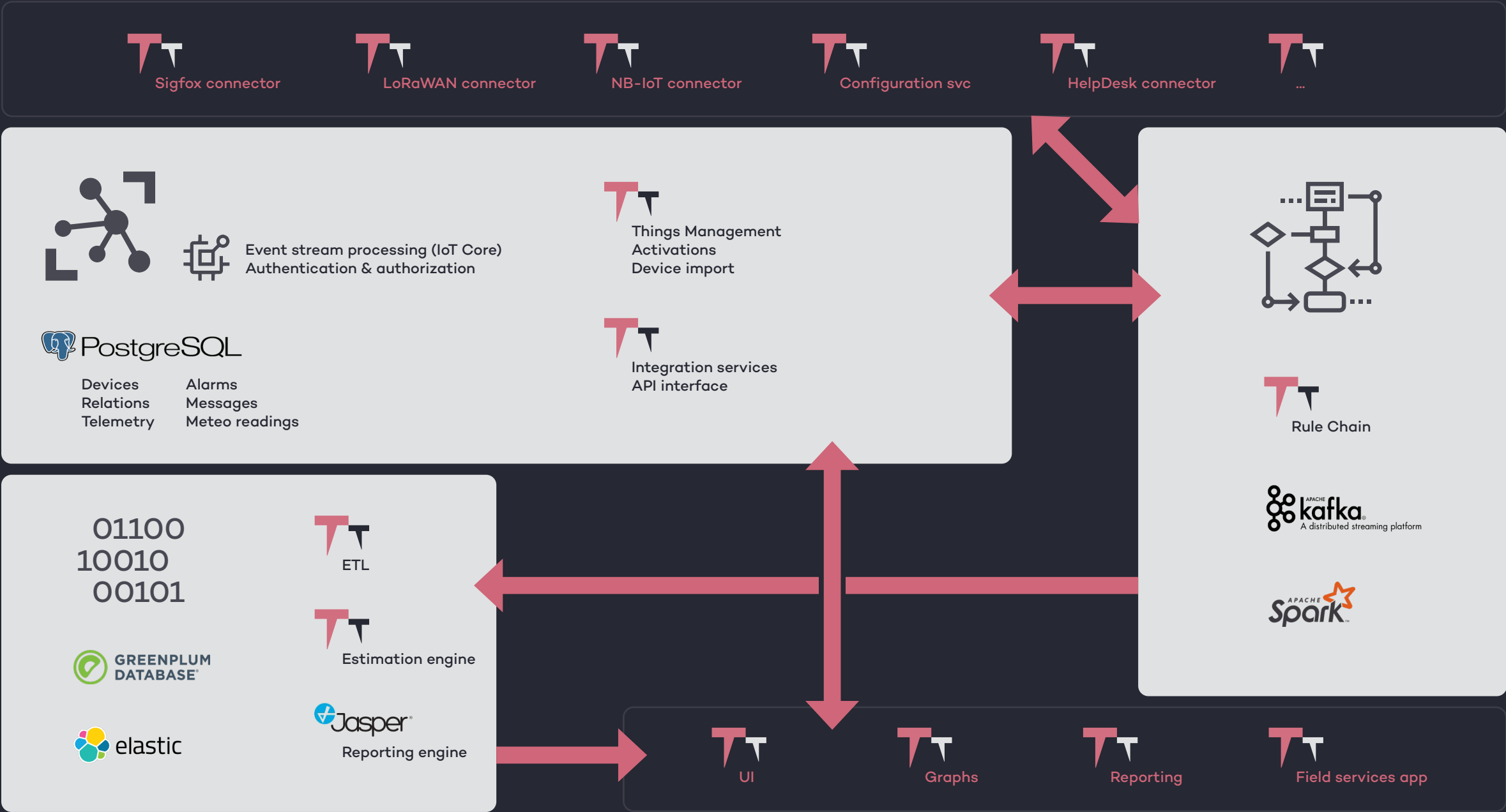


ThingsTalk is fully compliant
with all requirements of the
green economy.

Technologies

Open source technologies, agile methodologies and microservice architectures used in its design make the ThingsTalk platform flexible and sustainable in the long term. In order to achieve maximum performance, constant availability and scalability of the service, ThingsTalk is implemented on the OpenShift cloud.





Operational excellence

Maintaining a balance between people, processes and technologies is a key success factor. User satisfaction, higher profits and quality of service depend on it. And finally: this is what will elevate you above the competition.

Supervision and administration center

It is the hub of the ThingsTalk platform – where all devices are configured, and all data is updated. The center provides a full overview: all devices are visible on the network map, along with statuses (alerts), master data and technical information. Field agents are able to access it via a smartphone application, which facilitates and simplifies the devices installation process.

User experience

The solution has multiple user interfaces designed according to requirements of different industries, whether it is gas meter reading, water meter reading, or asset tracking. The application is transparent, ergonomic, responsive and easy to use. All out-of-the-box reports are compliant with regulatory requirements and provisions of supervisory authorities.

- Home
- Measuring Points
- Assets**
- Map
- Alarms
- Valve control
- Reports

Assets > 1006

Map

06.12.2022 16:27:27
Heinzlova 70, 10000 Zagreb, Hrvatska

Historical overview of asset location

VIEW HISTORY FOR THE LAST 30 DAYS

Time ↓	Latitude	Longitude
06.12.2022 16:10:47	45.2118731	13.67312908
06.12.2022 15:54:07	45.7180675	16.0512788
06.12.2022 15:37:27	44.1015354	16.0512788
06.12.2022 15:20:47	44.1015354	15.26766641
06.12.2022 15:04:07	44.1012689	15.26766641
06.12.2022 14:47:27	44.1052697198775	15.26782325

Asset

Transport number
XD1003

Manufacturer
Comping dao

Inventory number
703034

Serial number
23

Classification
Mobile mesh trolley (RX6H)

Factory number
800000000100

Headquarters location
3234 New Street, 97911, Juntura, Oregon

Source

Date of installation
14.05.2021 14:00:00

Manufacturer
Comping dao

Service provider
SIGFOX

Maintains
IoT Net Adria

Sensor type
IE2030300

Serial number
LIBX2SS2000010

- Home
- Measuring Points
- Assets**
- Map
- Alarms
- Valve control
- Reports

Assets

6

Measuring point readings

14

Comping Admin

Active alarms

6

1

Unreported battery

Map

Assets

Inventory number

Transport number

Classification

Headquarters location

Serial number

Factory number

602036	XD9900	Mobile mesh trolley (RX6H)	3234 New Street, 97911, Juntura, Oregon	11	800000000000
402032	XD4050	Mobile mesh trolley (RX6H)	3234 New Street, 97911, Juntura, Oregon	44	800000000000
502030	XD4050	Mobile mesh trolley (RX6H)	3234 New Street, 97911, Juntura, Oregon	134	800000000000
403039	XD0312	Mobile mesh trolley (RX6H)	3234 New Street, 97911, Juntura, Oregon	54	800000000000
203038	XD0312	Mobile mesh trolley (RX6H)	3234 New Street, 97911, Juntura, Oregon	354	800000000000
203037	XD0000	Mobile mesh trolley (RX6H)	3234 New Street, 97911, Juntura, Oregon	84	800000000000
803036	XD0403	Mobile mesh trolley (RX6H)	3234 New Street, 97911, Juntura, Oregon	2	800000000000
303035	XD0005	Mobile mesh trolley (RX6H)	3234 New Street, 97911, Juntura, Oregon	15	800000000000

Integrations

The ThingsTalk solution integrates various business systems, such as billing, ERP, automatic data delivery systems, business support solutions (BSS) and systems for collecting data from remote locations. It also improves other processes, such as business planning, maintenance and customer support.

Data security and quality

ThingsTalk enables automatic classification and storage of structured data by each device and according to a variety of parameters. In addition, it protects data from theft, manipulation, and destruction in accordance with ISO27001 and ISO27017 standards. It has built-in automated processes for periodic data quality control and reporting on any irregularities detected. As a part of its backup and recovery process, it regularly creates additional copies of data and stores them at a secondary location. All of this guarantees maximum availability and a high level of business continuity.

Implementation models

ThingsTalk service is a standard data center cloud service, owned and fully controlled by Comping and Data Target. It requires dedicated Internet links with a network service provider, most often a telecom sector company.

- **Greenfield implementation**

A comprehensive configuration of IoT devices network that connects to the platform. This is a ready-to-operate installation.

- **Implementation of the existing network of interconnected devices**

Replacement of the existing third-party platform with Comping's solution. This model requires data migration from the previous system to our network. Data migration is an additional service.

- **Implementation of the ThingsTalk platform as an “umbrella platform.”**

In this case the existing platform serves as a data source for our platform. This model is the best fit for situations in which users are satisfied with their existing system, and they yet need a solution to unify their information systems. The umbrella implementation includes networks with which the current platform is not compatible.

About Comping

Comping develops solutions for digital transformation, and one of its solutions is **ThingsTalk**, the IoT-as-a-service platform. About thirty experts – specialists in software development, business analytics, and the Internet of Things – work continuously on its development and implementations.

The Comping Group is comprised of three companies:

Comping (system integrator),

IoT NeT Adria (provider of the Sigfox OG IoT network), and

DataTarget (data center management specialist).

In addition to IoT platforms, Sigfox network and data centers, Comping develops custom user-specific solutions, deploys IT infrastructures, and implements business analytics systems, employing more than 160 experts in a wide range of information technology fields.

