

NGT IoT Core

Cloud-based IoT Platform

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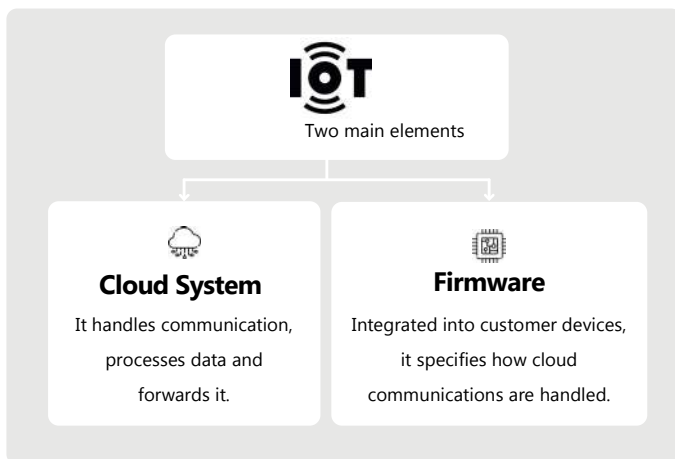
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NGT IoT Core

NGT IoT Core is a connectivity platform that manages the data transfer between devices and the cloud. This platform simplifies the development of IoT products by providing a state-of-the-art connectivity solution to bridge devices to the cloud, allowing smooth communication between them.



It relieves developers of many time-consuming steps in the development process for an IoT product. NGT IoT core runs this innovative software service under a subscription or licensing model that adapts to the needs of each use case.



Device Management

Get a comprehensive real-time picture of all your Devices at a glance. Massively improve management efficiency.



Process Automation

Issuing automatic alerts before errors occur in your devices helps you maintain a constant and efficient workflow.



Rule Engine

With user-friendly design and robust functionality, effortlessly automate workflows and ensure efficiency.



Data Collection

Access your devices' data remotely - from anywhere at anytime. Know immediately, act fast, reduce maintenance costs.

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Application Dimensions



Energy Consumption

In scenarios where a device needs to be independent of any constant power source and is powered by batteries, the system architecture can be built to be extremely energy-efficient. In this case, the IoT devices do not have to be permanently in a state of readiness to receive or send data. Flexible settings allow our customers to decide how often the devices should “wake up” to optimize energy consumption.



Data Transfer Technology

The tool that we use comes with several cellular technologies that support different applications. For example, NB-IoT and LoRa are supported for use cases in which better coverage at a higher latency is required and the size of the data is small.



Operational Scenarios

This new IoT product generation uses cellular communication independently of routers, so that IoT devices are independent of any onsite setup to be activated. Devices running on NGT IoT Core work out of the box. They can work in almost any country in the world without extra effort. Any time-consuming installation effort is eliminated.



Adaptability

What makes NGT IoT Core unique is the agnosticism of the infrastructure it runs on and its adaptability. This is achieved using infrastructure as code approach, using Terraform, which only utilizes non-proprietary infrastructure elements. This ensures that IoT Core can run on any Infrastructure as a Service (IaaS) provider (like AWS or Google Cloud Platform) but also on-premise.



Versatility

The versatility of this platform supports a full range of applications, regardless of their nature: power source, connectivity technology or data transfer capacity. The system adapts to the different customer parameters to exactly meet each use case.

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Architectural Overview

Three innovations make NGT IoT Core the optimal choice to easily adapt to each use case. The System comprises three main components that operate on cloud, transmission and firmware levels.

NGT Cloud

API

NGT cloud platform enables users to manage and control IoT devices. Using a standardized HTTP REST API or MQTT API the users are able to:

- Create or modify devices in the Cloud
- Group devices into different groups (Applications) to restrict access to certain devices
- Trigger remote procedure calls
- Read events data from devices
- Create and manage Over-the-Air Firmware deployments
- Define webhooks that are used to distribute information about certain events to own or third party applications

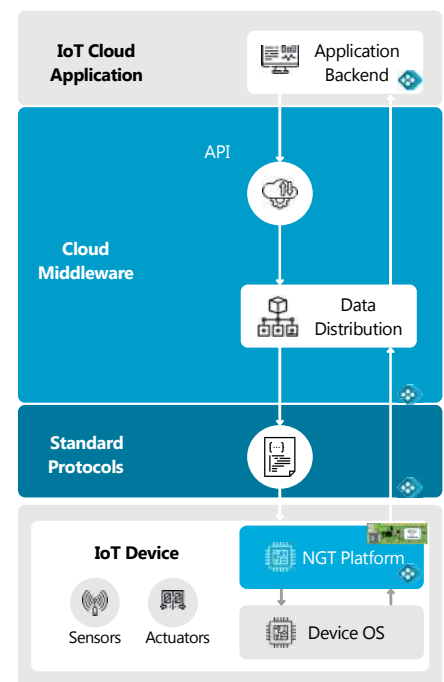
The API is designed to act as a single interface to communicate with the devices.

Messaging System

NGT IoT Cloud handles sending and receiving device messages. It automatically encodes messages into a specific format, as defined by Standard Protocol and sends them to the devices. Messages sent by devices to the cloud are automatically decoded and further distributed by the Data Distribution System.

Data Distribution System

By using a webhook system, NGT IoT Cloud can distribute device data and status updates to third party systems. Webhooks can be defined to distribute a single event to several systems at once.



NGT IoT Core

- ✓ Implementation Support
- ✓ IoT Best Practices
- ✓ Full Documentation
- ✓ NGT Cloud Access
- ✓ MNO integrations
- ✓ Network of experts

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Features

NGT IoT Core offers the possibility of being integrated with external ERP and CRM systems of your choice to make better use of the data generated.

The availability of this data in a familiar interface can lead to better and more informed-based decisions. For example, a company that is used to working with Salesforce or SAP can integrate the data provided by the devices connected to NGT IoT Core with a few clicks.

Integration to external systems



Secure Cloud

Devices can be connected to the NGT Cloud either via public Internet or within a closed network (VPN or APN).

NGT maintain virtual private networks with different MNOs so that the data sent from the device to the cloud is secure and remains within the private cloud

Customized dashboard



Automation & Triggers

If your company doesn't have a unified CRM or ERP system, we can provide a customized dashboard tailored to your needs. We can design how the information is displayed and establish actions that would trigger alarms or notifications.

For example, if the temperature of your location where your device is located reaches a certain degree, specific people will be notified immediately to take the appropriate action. As administrator, you can also grant access to specific people in your team to determine the information they are allowed to see. This dashboard can be accessed from any computer, tablet or smartphone with Internet access.

NGT IoT core boasts a robust automation engine, enabling customizable triggers and actions for effortless task automation. Users can easily configure rules based on environmental sensors, motion detection, and equipment malfunctions. With seamless integration with diverse IoT devices, our platform optimizes operations and enhances efficiency across industries."

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Mode of Operation

Platform as a Service

NGT IoT Core uses a **Platform-as-a-Service** approach. This model of technology delivery is offered under a subscription fee based on the number of devices that are to be connected per month.

One of the biggest advantages of running your devices on our platform is fast time-to-market. The maintenance of the Cloud platform is responsibility of NGT Platform when it is run on a Platform-as-a-Service.

- Fast time-to-market
- Grow-as-you-grow
- Reduce risks
- Focus on your business application
- **Subscription model**

Private Cloud

Customers can also acquire a **licence** to run an owned version on their own as a Private Cloud. For companies predicting an increasing growth in the number of devices, we recommend buying a licence that will reduce costs in the long term. This option should be considered if the company has the capacity to manage and maintain its own version of this platform by itself.

The biggest advantage of this option is the full control and independence over your system as the Cloud runs on your own servers.

- Full control over your Cloud
- Licence for unlimited time
- For high number of devices
- **Licencing model**



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