Managed IoT Cloud

Managed IoT Cloud is a secure cloud platform for device and data management that generates valuable and useful insights about your connected products. It provides the building blocks you need to connect your product, collect and store all product data, and extract value and insights from that data. It includes a self-service tool and a customizable application to get you kick-started and when your digital service starts to grow, Managed IoT scales with you, globally.

We also cooperate with device and application partners to provide a complete end-to-end solution for your digital services. Business relations with the partners are solely established by you based on your needs.

Managed IoT Cloud enables you to focus on your connected product and its user experience, while we take care of the underlying technology infrastructure.

- Shortens your time to market.
- Reduces your cost and risk using a proven and operational IoT cloud platform.
- Enables you to focus on customer experience and business development instead of technology.
- Helps you scale your solution globally.

App Board

The Managed IoT Cloud App Board is a customizable web application, leveraging the platform APIs. It allows users to view, manage, and analyse data from your products as well as interacting with them. It also serves as a self-service tool for managing your products and their data.

Features

- Branding by configuration
- Drag and drop customizable dashboards with numerous widget types to choose from.
- Tracking and inventory
- Product monitoring and control.
- Events and alarms.

Benefits

- Intuitive and gets you started with minimal effort
- App Board supports a number of common use cases “out of the box” – immediate value and use case validation.
- Possibility to tailor the look and feel.
- Accessible from PC or mobile phone.

Technical Data

The graphical user interface in the App Board exposes selected functionality of the APIs.

- Single page application.
- Built using state-of-the-art JavaScript technology.
- Distributed using global content delivery network.

Information Management

Stores and processes information from your products and exposes open APIs to applications such as the App Board, tailored application or any 3rd party system. The Information Management layer also includes user management, meta data management and a powerful rule engine.

Features

- Stores observation gathered from the products.
- Data processing and advanced query capabilities towards large volumes of data.
- Powerful rule engine allows automated processing of data.
- Integration and interaction through a selction of tools such as API, webhooks and integration engines.

Benefits

- A scalable, reliable, and cost efficient platform and infrastructure.
- Eases the burdon of an end-to-end IoT solution, letting you focus on your product and its application, not the underlying infrastructure
- Enables easy integration with any 3rd party system

Technical Data

The Information Management layer provides scalable and reliable services built using a serverless architecture.

- x Developer-friendly APIs.
- x Raw data is reliably stored, as well as indexed for powerful search capabilities.
- x User management building on industry standards and best practices.

Communication Management

To securely and reliably maintain two-way communication with a large number of intermittently connected products, we supply specialized infrastructure, functions and protocols.

Features

- MQTT protocol and scalable message buss.
- Mutual authentication and encryption for connected devices.
- Policy-based authorization and access control.
- Automatic synchronization between device and cloud connect platform when device is online.

Benefits

- Scalable, reliable and secure mechanisms for two way communication with large number of intermittently connected things.
- Shorten time to market for your solution by leveraging proven technology.
- Tailor access rights to suit your application needs.

Technical Data

The Communication Management provides secure and reliable infrastructure to receive and send data to and from your products.

- Developers can access live data streams using publish/subscribe APIs
- MQTT Protocol.
- TLS Encryption.
- X.509 Certificates.

Device Management

After a successful launch, a connected product needs to be both maintained and improved over its lifecycle. To address this, Device Management enables you to track and maintain asset records, and remotely update the software of the device and your product.

Features

- Supports upload and download of files to and from products.
- Enables remote updates of firmware.
- Manage credentials and certificates.
- Product registry including meta data.

Benefits

- Update your products' software remotely, without field visits.
- Add software-defined functionality over the product's life-cycle.
- Manage security credentials.

Technical Data

Effective Device Management requires an end-to-end perspective of your IoT solution. Managed IoT Cloud includes generic building blocks and best practice implementations.

- Create, download and revoke thing certificates – single or in batch.
- Functionality for file upload/download to/from the devices.
- Store and track meta data per thing.

Connector

Simplify connecting your product with the Connector, an optional software library for embedded environments. With the Connector, you get access to proven functionality that streamlines your embedded development effort and helps you optimize and secure the connection over the mobile network.

Features

- Keeps resources updated between the cloud and the device.
- Provides implementations of TLS encryption and the MQTT protocol.
- Implements GSMA IoT Connection Efficiency.
- Stores security credentials on the device.

Benefits

- Shortens development time for device application.
- Reduces cost by optimizing data transfer.

Technical Data

The Connector provides field-proven embedded implementations of the communication and security mechanisms required to connect your product.

- TLS-encrypted MQTT is used to update resources.
- HTTPS is used to transfer files.
- Portable C-library.

Service Excellence Tools

Service Excellence tools are part of offering that contains services to successfully manage, design and implement your IoT business solution. Service Excellence tools provide deep insight into connected devices to deliver a better end-user experience, improve competitive position and increase revenues.

24/7 Service Desk

We ensure highest possible availability of support – you can reach our Service Desk staff at any time, 24/7/365.

SPOC Service Desk

We can take care of incident reporting and handling and be your single point of service desk contact for solution delivered partly by us and partly by one or more partner(s).

Self Service

Every Telenor Connexion Customer gains access to a web-based Self Service Portal. With the portal you get complete overview and control of your Managed IoT Solution. The Self Service Portal includes SIM Management tools, real-time traffic surveillance, alert functions, historical statistics and diagnostic tools. You can also set up your own portal, with APIs to your own IS/IT systems.

Service Level Agreements

There are number of different Service Level Agreements (SLA) designed to ensure you always can deliver a reliable and accessible service to your end-customer.

Advanced Real-time troubleshooting Tool Set

Advanced Real-time troubleshooting Tool Set (ARTS) is a web interface running on a cloud platform. ARTS collects and analyzes big data streams and provides you with actionable and detailed insights. With ARTS you can predict network issues, create automated alarms, and identify new market opportunities.

Professional Service

We offer a variety of professional services for solution design and operation that decrease need for in-house competence and resources.

Connect with us!

Give us a call: 21222 or visit www.grameenphone.com/iotplatform