

Indoor Tracking Site

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Sponsor: Inwerken

What

Our goal was to create a web application that tracks the location and status of various hardware

The hardware



iBeacon



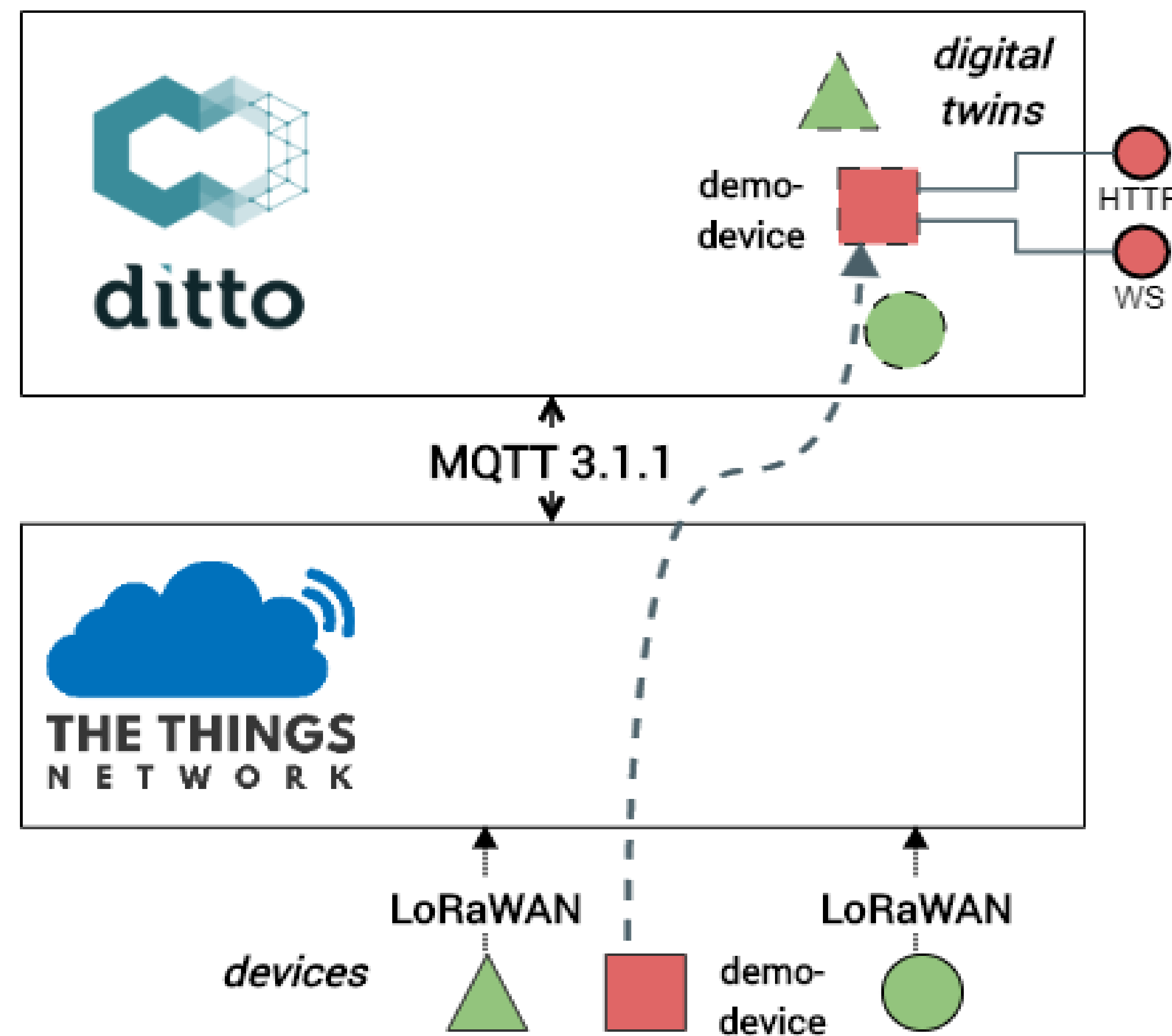
Gateway



Tracker

Why

Inwerken would like to attach trackers and other sensors to their assets and be able to monitor them from a web application



How

- 1.) The hardware sends information to a LoRaWan server called TheThingsNetwork. This server then publishes the data obtained from the sensors through an MQTT broker.
- 2.) Then we subscribed a service called Ditto to this MQTT broker to create digital twins of the hardware
- 3.) Next, we call the Ditto API to display the data from the hardware in our web application.

Terminology

Digital Twins: A simulated representation of a hardware device

MQTT: a lightweight protocol designed to transport information from IOT devices

LoRa: Stands for Long Range. It is a protocol used to connect IOT devices to the internet

LoRaWan: A server that is broadcasting LoRa Protocols. TheThingsNetwork is a LoRaWan server.