



INTERNET OF THINGS MADE EASY

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10/2019

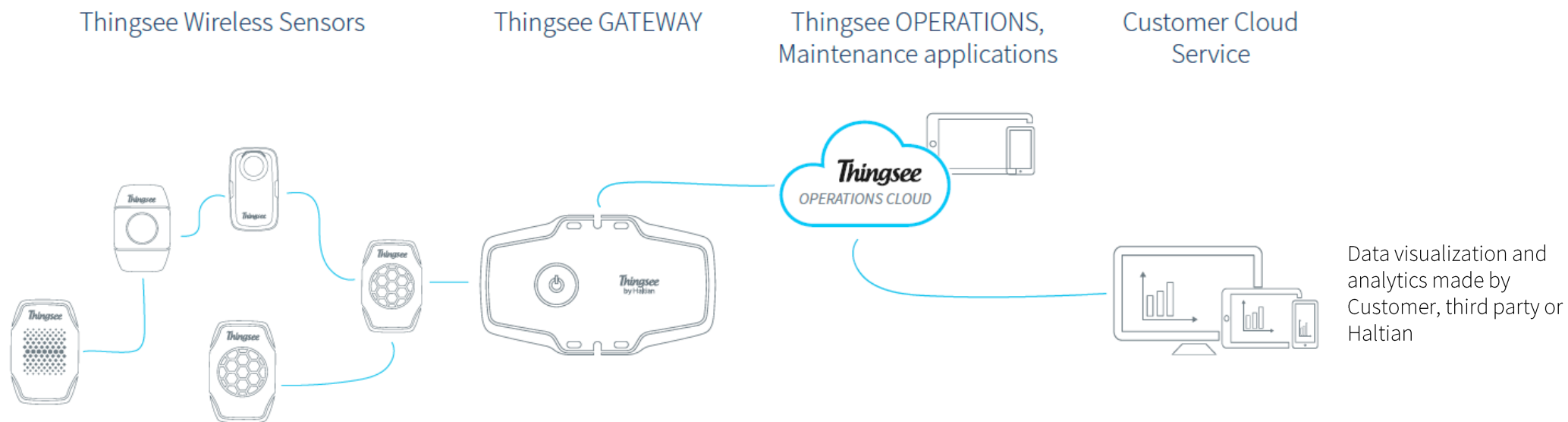


INTERNET OF THINGS MADE EASY BY *Thingsee*

THINGSEE IoT PLATFORM IS A COMPLETE DATA LAYER SOLUTION FOR MULTIPLE USE CASES AND BUSINESSES

OUR CUSTOMER CAN FOCUS ON RUNNING THE BUSINESS BASED ON DATA WE PROVIDE.

Thingsee IoT Platform guarantees data runs to your system.



HALTIAN – FOCUS IN 3 IOT SEGMENTS

Thingsee IoT Platform

Standard App

API

Toolbox SW

Device management

Connectivity

Gateways

Mesh network

Sensors



1 Smart Washrooms

Apps & Services

2 Smart Factories

Standard, custom & partner Apps & Services

3 Smart Facilities

Standard, custom & partner Apps & Services

Asset tracking –
In piloting mode

Standard, custom & partner Apps & Services

Others

Apps & Services

Custom/
3rd Party sensor

SMART WASHROOM - SIMPLIFIED

USE THINGSEE DISTANCE
TO OPTIMIZE REFILLS



COUNT USER VISITS
WITH THINGSEE PRESENCE

GET NOTIFIED WHEN
MAINTENANCE IS NEEDED



EXAMPLE: MEASURED BENEFITS OF HALTIAN IoT SOLUTION

CASE: LINDSTRÖM FLOWABILITY WASHROOM: 100 000 hand towel dispensers to be equipped with sensors in Finland (Lindström operates in 24 different countries). Nearly 40 000 sensors delivered by 10/2019.

Great benefits in washroom user satisfaction, workforce usage optimization, decreased logistics costs and increased sales of towel rolls.

SAVES TIME
SAVES STEPS
EFFICIENCY
SAVES MONEY
INCREASES
CONSUMER
SATISFATION
INCREASES
SALES

15% MORE TIME FOR
CLEANING
CRITICAL
AREAS

40% LESS
CHECKS
NEEDED



30% OF CONSUMERS FEELS
THAT TIDINESS OF
RESTROOMS IS REASON TO
CHOOSE A MALL

30% LESS STEPS
for cleaners

1,3%
SALES
INCREASE

66% OF
CONSUMERS
WOULD
RECOMMEND
MALL
BASED ON
TIDINESS OF
THE RESTROOMS

Sources:

Ediste Oy, Study 2015 to Lindström.

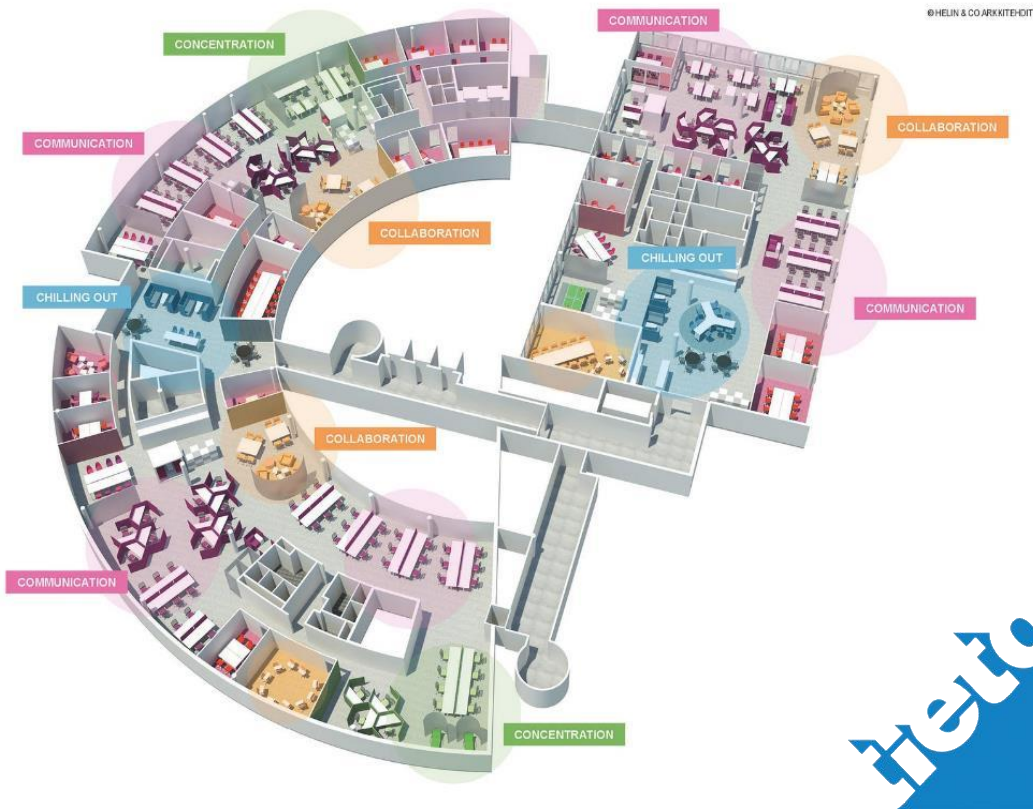
Linking measures of customer satisfaction, value and loyalty to financial performance. Burke Institute, 2004. Time is

Money. Shoppers buy more when they stay longer. Path Intelligence & Massachusetts Institute of Technology, 2007.

Yleisökäymälät vähittäiskaupan vetovoimatekijänä. University of Turku, 2013.

SMART FACILITIES - KNOW HOW THEY ARE USED

TIETO Emphatic Building shipped solution with 10000 measurement points to date



OCCUPANCY
"Table 7 occupied"

SMART FACILITIES

LIVE USE CASES

Thingsee IoT
Platform



Smart
Facilities

Partner and Custom Apps & Services

- Room occupancy
- Desk occupancy
- Visitor counting
- Environmental measurements
 - Temperature, humidity, Illumination, CO2, VOC, PM2.5 measurements
- Container fill rate measurements
f.ex. material bin fill rates



SMART FACTORIES | INDUSTRY 4.0

Thingsee IoT
Platform



Smart
Factories

THINGSEE ANGLE SENSOR

BETTER PRODUCTIVITY
PREDICTIVE MAINTENANCE
IMPROVED SAFETY



Valve monitoring in a pulp&paper plant

SMART FACTORIES | INDUSTRY 4.0

LIVE USE CASES

Thingsee IoT
Platform



Smart
Factories

Machine usage and condition monitoring

Manufacturing machines, pumps and motors

Doors, ports and shutters

Tactic knowledge data

Process and environmental monitoring

Temperature, humidity, light and air-pressure monitoring

Water and liquids leakage monitoring

Vibration measurement

Air quality monitoring

Fill-rate monitoring

Tanks, trash pins

Valve monitoring

Valve angle sensor to monitor valve position

Asset & people tracking

Indoor positioning

Custom Apps & Services



Temperature monitoring for connection joints at an electric switch station

THINGSEE DEVICES AVAILABLE

THINGSEE GATEWAYS

- Cellular GW
- LAN GW
- PoC device: NB-IoT/CatM1 gateway

THINGSEE SENSOR DEVICES

- ThingseePresence + variants
- ThingseeDistance
- ThingseeEnvironment
- ThingseeEnvironment Rugged
- ThingseeActivity
- ThingseeAngle
- PoC devices:
 - ThingseeSoap,
 - ThingseeAirQ,
 - ThingseeLeakage
 - ThingseeCube



UNIQUE CUSTOMER BENEFITS OF THINGSEE IOT PLATFORM

**'ONE STOP
SHOP'
DATA TO APP
CLOUD**

**MULTIPLE
BUSINESS
AND
USE CASES**

**90% READY
TO ANYTHING
10% TAILORING**

**THE
EASIEST
TO
INSTALL**

**MOST
COST
EFFECTIVE
ARCHITECTURE**

**LIFECYCLE
SOLUTION:
FROM IDEA TO
DEPLOYMENT
AND MAINTENANCE**

**EASY
TO
TAILOR**



PRODUCT DEVELOPMENT SERVICES



HALTIAN AWARD WINNING PRODUCT DEVELOPMENT SERVICES



OURA



SPECIM IQ



omata



genkiinstruments

..AND 50 MORE DIFFERENT WIRELESS PRODUCTS DEVELOPED FOR CUSTOMERS IN EUROPE AND US.

HALTIAN COMPANY

**INTERNET OF
THINGS**
SOLUTIONS
FOR
ENTERPRISES

FOUNDED
2012

80
WORLD-CLASS
EXPERTS
INHOUSE

OULU
&
ESPOO,
FINLAND

Thingsee
IOT
PLATFORM
DEVELOPED
SINCE
2013

6M€
INVESTED
IN R&D

4
GENERATIONS OF
IOT PLATFORM

**BREAK-
THROUGH**
DONE IN GLOBAL
IOT MARKET IN
2018-2019!

AWARDS 2018 – 2019:





Haltian

WE MAKE THINGS BETTER

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