Industrial IoT solution with sensors, platform and application to enhance manufacturing efficiency

Prepared by Nguyen Vinh Loc
CEO of Daviteq

Sept - 2019

www.daviteq.vn

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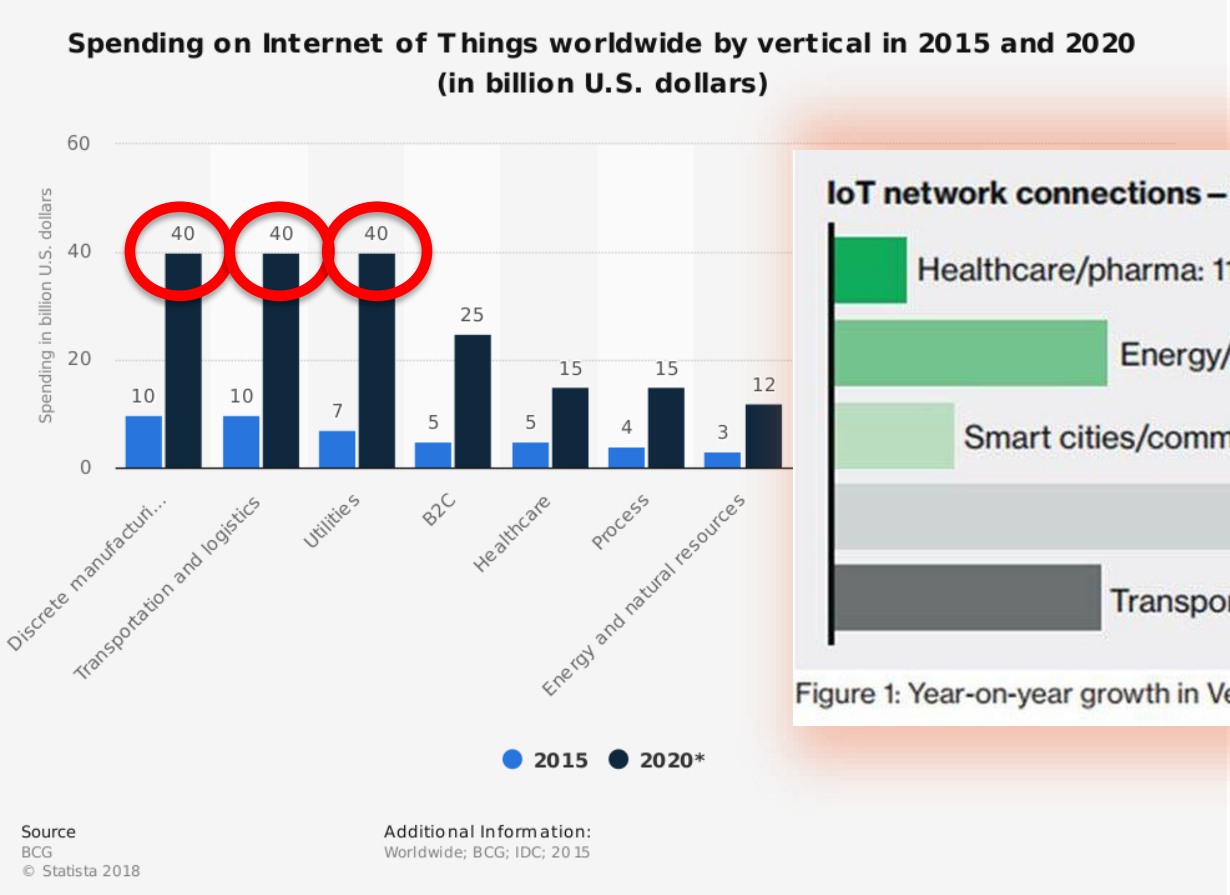
Content

1. Spending of IoT in various vertical markets;
2. Benefits of IIoT for Manufacturing;
3. Connectivity in Manufacturing and Why is cellular preferred?
4. Proven IIoT applications has been done by Daviteq;
5. Key Components in IIoT Solutions;
6. About Daviteq & Contact information.

1. Spending of IoT in Vertical markets



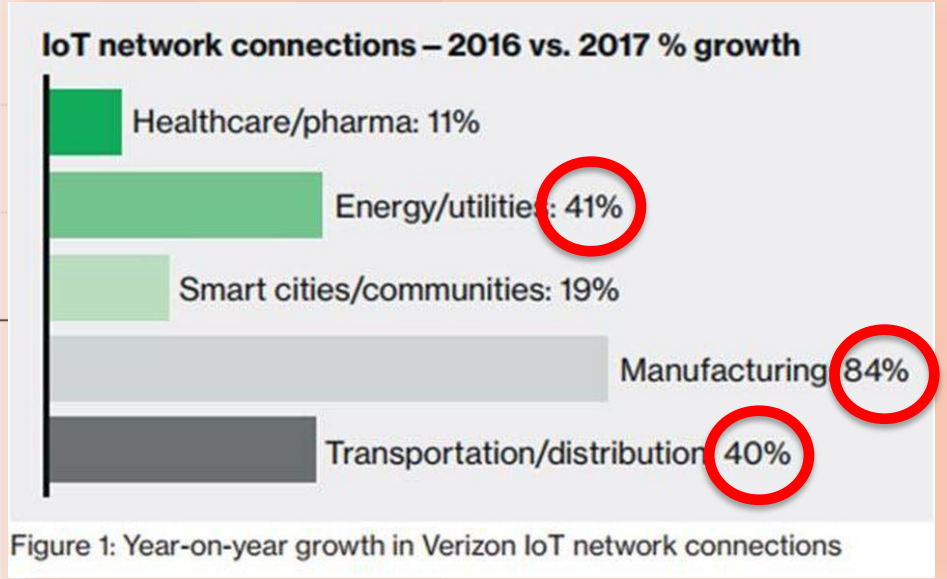
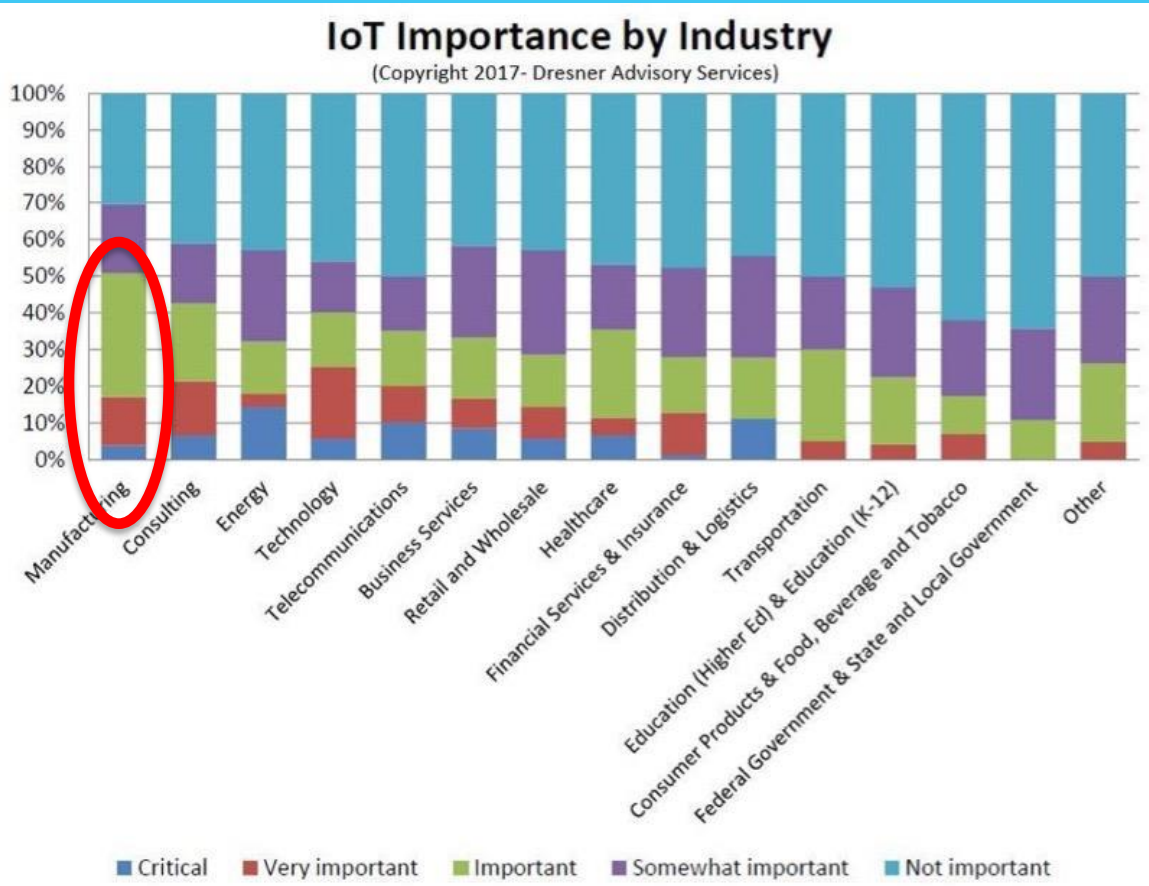


Figure 1: Year-on-year growth in Verizon IoT network connections

1. Spending of IoT in Vertical markets



2. Benefits of IIoT for Manufacturing

Improve operational efficiency

Reduce downtime

Increase Productivity

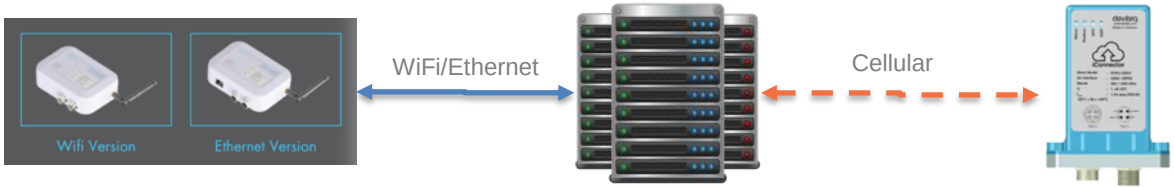
Maximize asset Utilization

Increase Worker Skills & Productivity

Reduce Cost

Improve Product Quality

3. Connectivity in Manufacturing and Why Cellular is preferred



Connectivity Type	WiFi/Ethernet	Cellular
Advantage	• Data transmit internally; • High transmission rate (only for few applications);	• Low investment and operation cost; • Quick deployment; • High reliability by cellular supplier • High mobility;
Disadvantage	• High investment and operation cost; • Time-consumed deployment; • Less mobility; • Low reliability;	• Data transmit outside factory (but data is encrypted); • Low transmission rate (only few applications need high rate)

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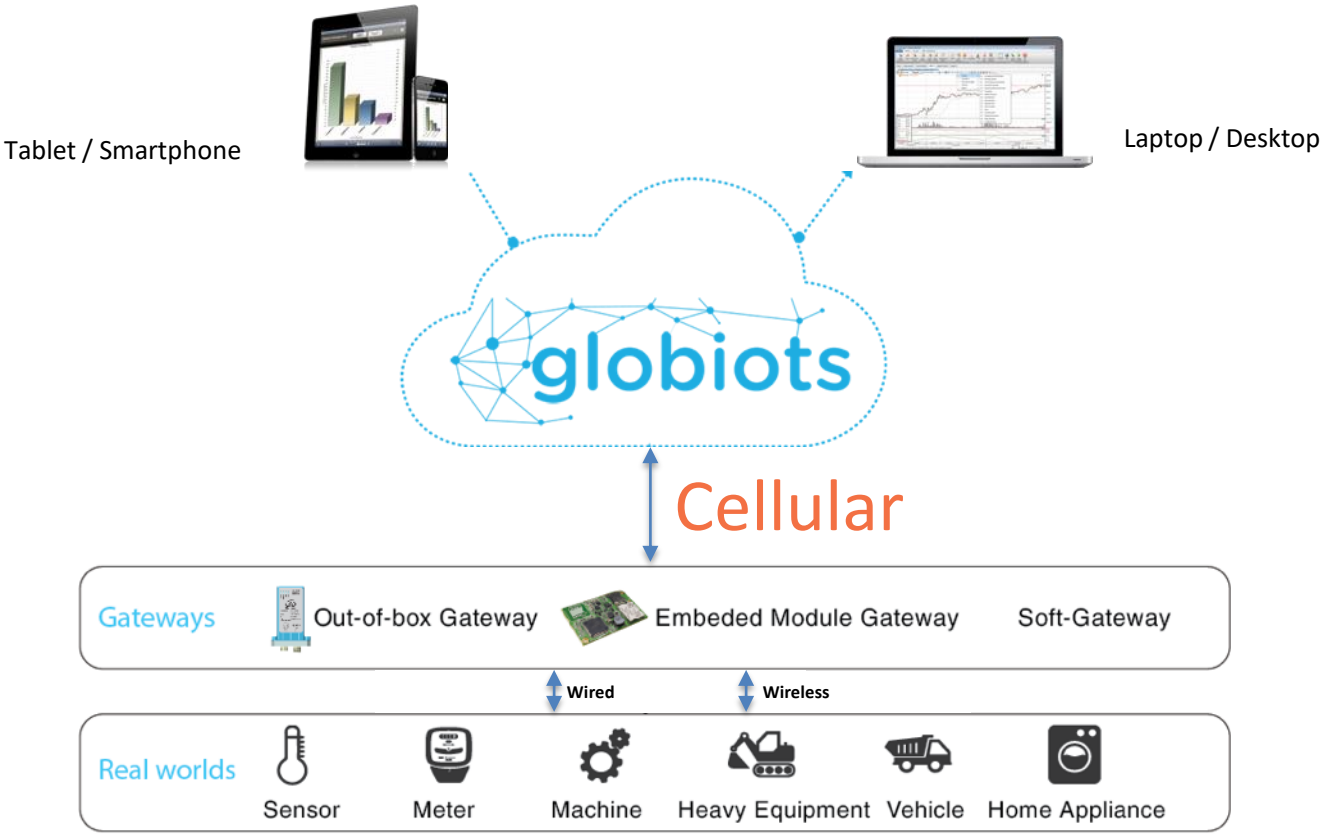
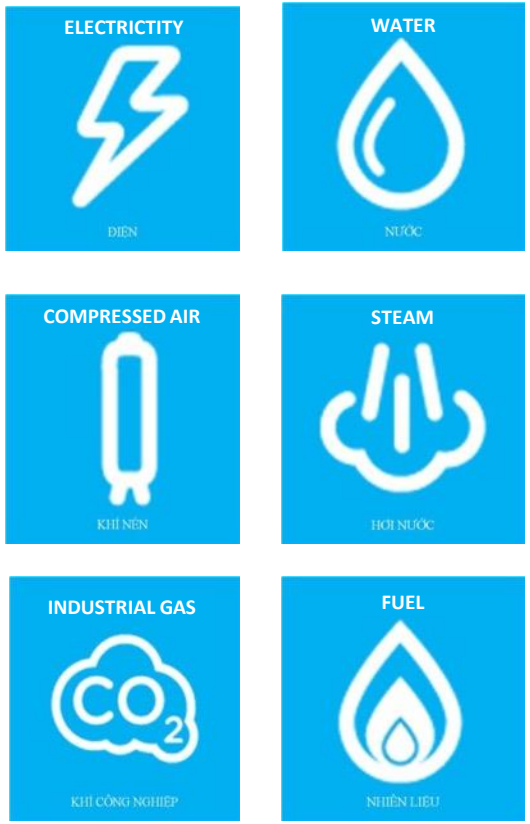
3. IIoT system architecture with Cellular network



4.

Proven IIoT applications that Daviteq has done in MANUFACTURING

Energy Management Solution for Manufacturing



Key Benefits

- Reduce production downtime
- Improve operational efficiency
- Reduce cost
- Enhance worker safety
- Comply to authority regulations and customer requirements

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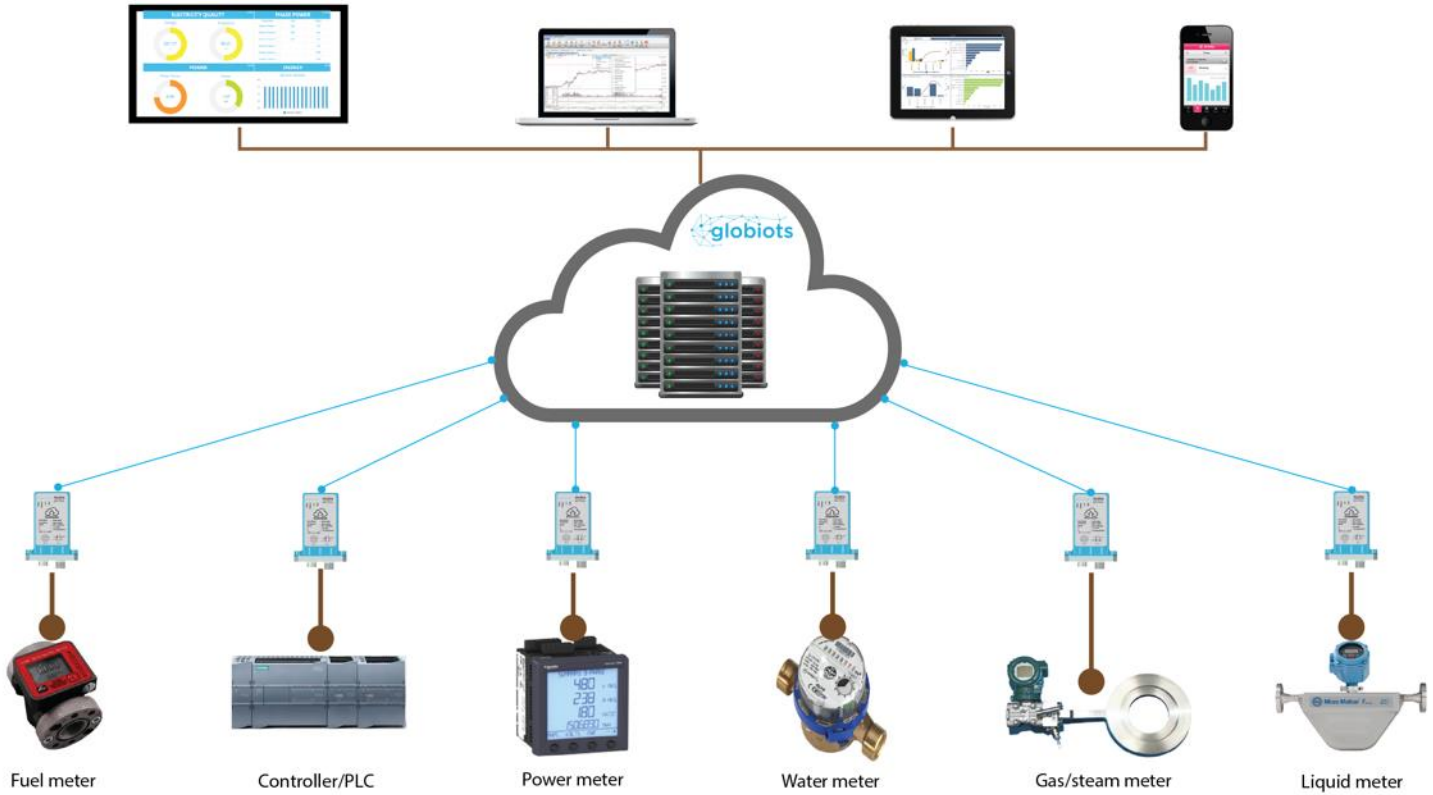
Energy Management Solution for Manufacturing



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Machine / Equipment Monitoring Solution

Production line

Production machine

Utility Equipment

Key Benefits

- Increase productivity
- Reduce cost
- Increase worker productivity
- Maximize asset utilization
- Reduce downtime
- Improve product quality

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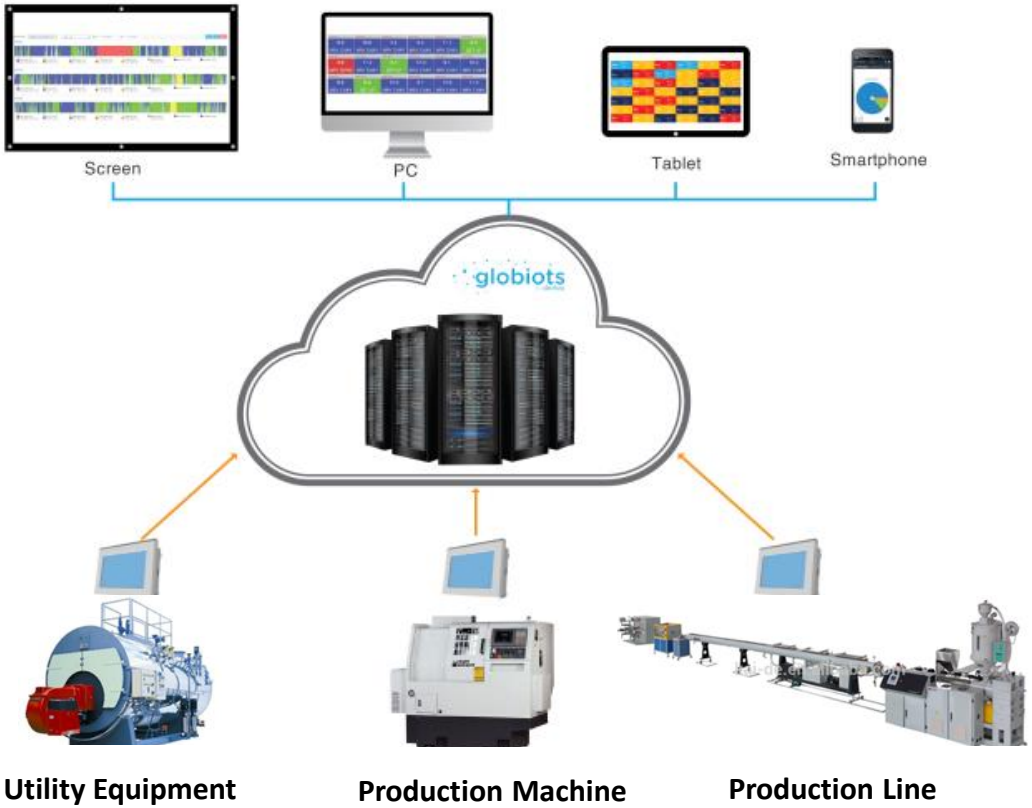
Machine / Equipment Monitoring Solution



Factory Environment Monitoring Solution

Temperature

Humidity

Differential Pressure

Air Quality

Light Condition

Water Quality

Key Benefits

- Improve product quality
- Enhance staff satisfaction
- Improve worker productivity
- Comply to authority regulations and industry standards

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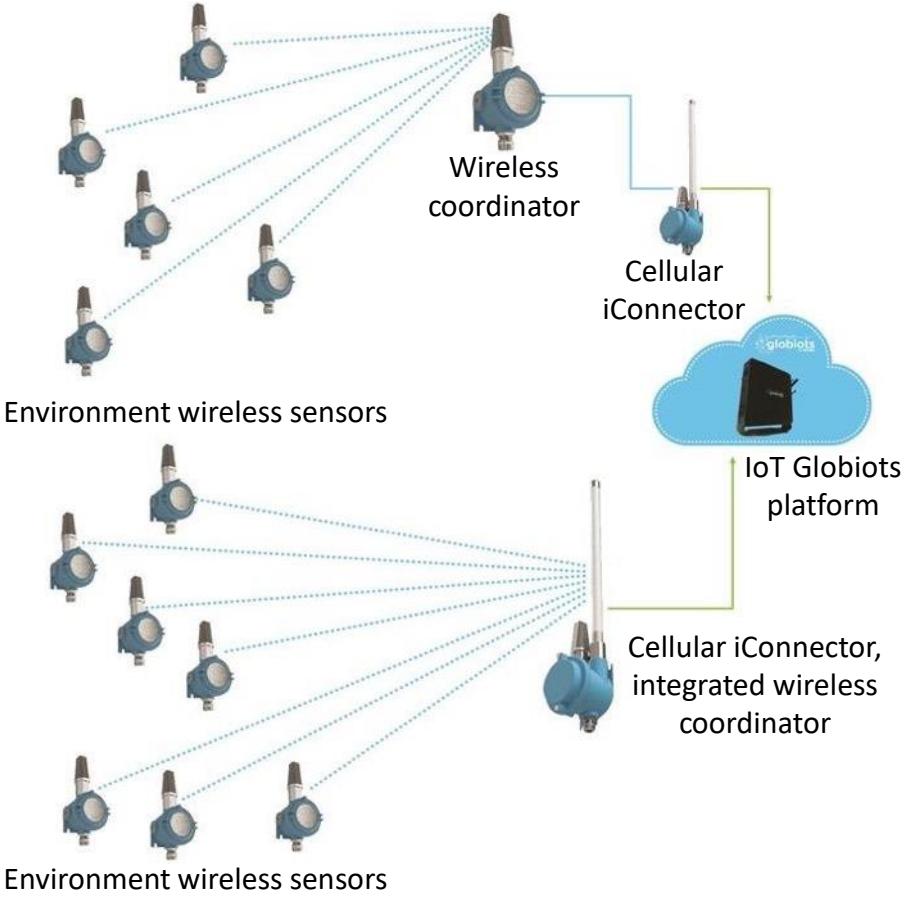
Proven IIoT factory environment monitoring solution



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5. Highlight Features of key components in IIoT

Smart IoT Gateway

iConnector

Product link:
http://www.daviteq.vn/en/?prd=iot-products-2_STHC_smart-iot-gateway---iconnector

Highlight Features

- Support 3G/4G/NB-IoT
- Data logging Function with on-chip memory
- Local Event Processor
- Fieldbus connectivity: Modbus, EthernetIP, Cclink, Profinet…wireless sensor (Lora/Sub-Ghz)
- Ultra-low power design;
- Proven since 2014 by Industrial customers;

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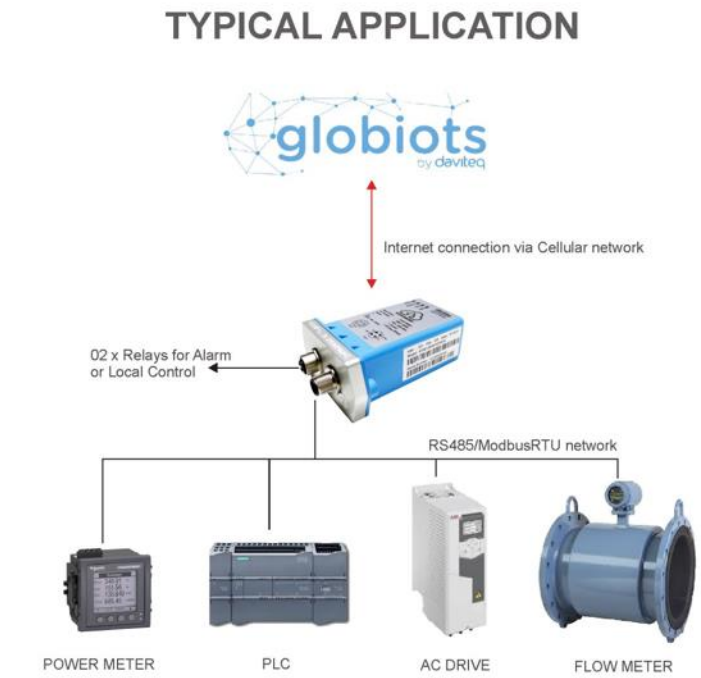
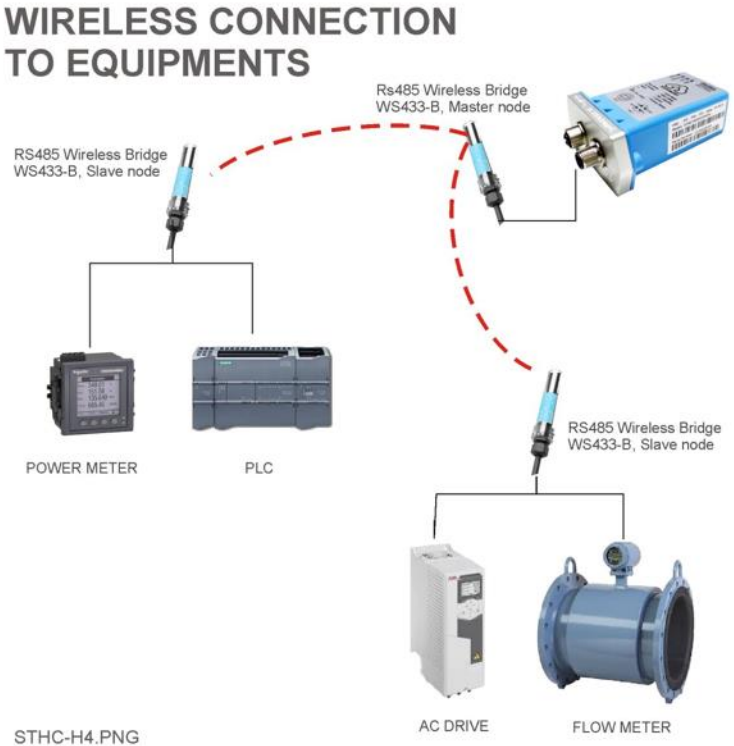


STHC-H3.PNG



STHC-H4.PNG

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5. Highlight Features of key components in IIoT

STHC-X-H1.PNG

STHC-X-H2.PNG

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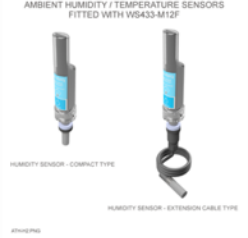
5. Highlight Features of key components in IIoT

Wireless Sensors & Actuators

Wireless Sensor Transmitter

Wireless Ambient Temperature Sensor



Wireless Ambient Humidity Sensor

Wireless Process Pressure Sensor

Ambient Temperature Sensor Module

Ambient Humidity & Temperature Sensor Module

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5. Highlight Features of key components in IIoT

Product link:
http://www.daviteq.vn/en/?prd=iot-products-2_ISV_industrial-globiots-servers

Highlight Features

Plug & Play

Pre-loaded Globiots sofware inside the server allows it to run automatically upon power up and connected

Heavy Duty

Industrial design with Fanless allows the server can work in extreme conditions like high temperature, high vibration, dust…

Powerfull IoT Functions

Pre-loaded of full functions of Globiots platform like Big Data storage, Data analytic, Visualization. It can be upgraded easily in future.

3-Year warranty

Warranty for both Hardware & Software

Artificial Intelligent

Optional software package utilize the Machine Learning technique to detect Anomaly and Prediction for Machine or Equipment healths.

Self-service Reporting

Optional software package allows user can build a report in minutes by drag & drop

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5. Highlight Features of key components in IIoT

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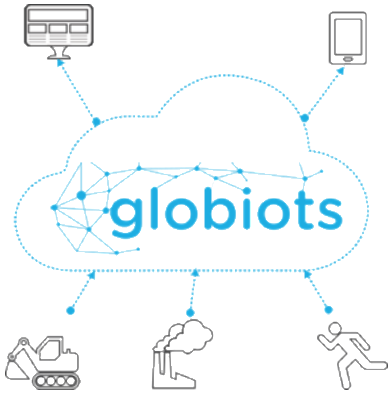
Industrial IoT Platform



- Globiots is an Global Industrial Internet of Things Platform, developed by Daviteq since 2012, gained from 10-year experiences in Measurement & Controls;
- Globiots platform allows customers easily connect their machine, process & people for Remote Management and Business Intelligent.
- Globiots can be deployed and installed everywhere in the World. All Globiots clusters can be connected worldwide to form a distributed world-wide IoT system.

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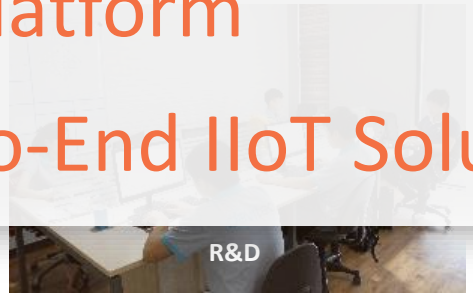
About Daviteq

We are EXPERT in:

- ✓Sensor & Wireless Sensor
- ✓IIoT Gateway
- ✓IIoT Platform
- ✓End-to-End IIoT Solutions



Launch PulseCAP 10 in Vietnam

Develop IoT Platform

First IoT Product launched

Develop Wireless Sensors

2014 2016 2018 2019

Continuous Product Development

Market leader Vietnam for Wireless Sensors & IIoT Solutions

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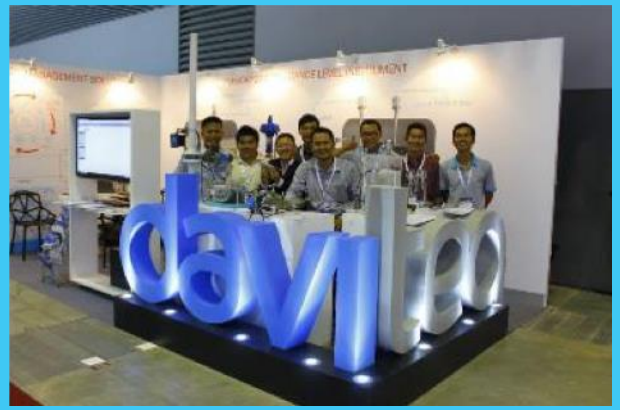
THANK YOU!



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