SNS COLLEGE OF TECHNOLOGY

Coimbatore-35
An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A++' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

19EET304/ IOT FOR ELECTRICAL SCIENCES

III YEAR VI SEM

UNIT 5 – IOT IMPLEMENTATIONS

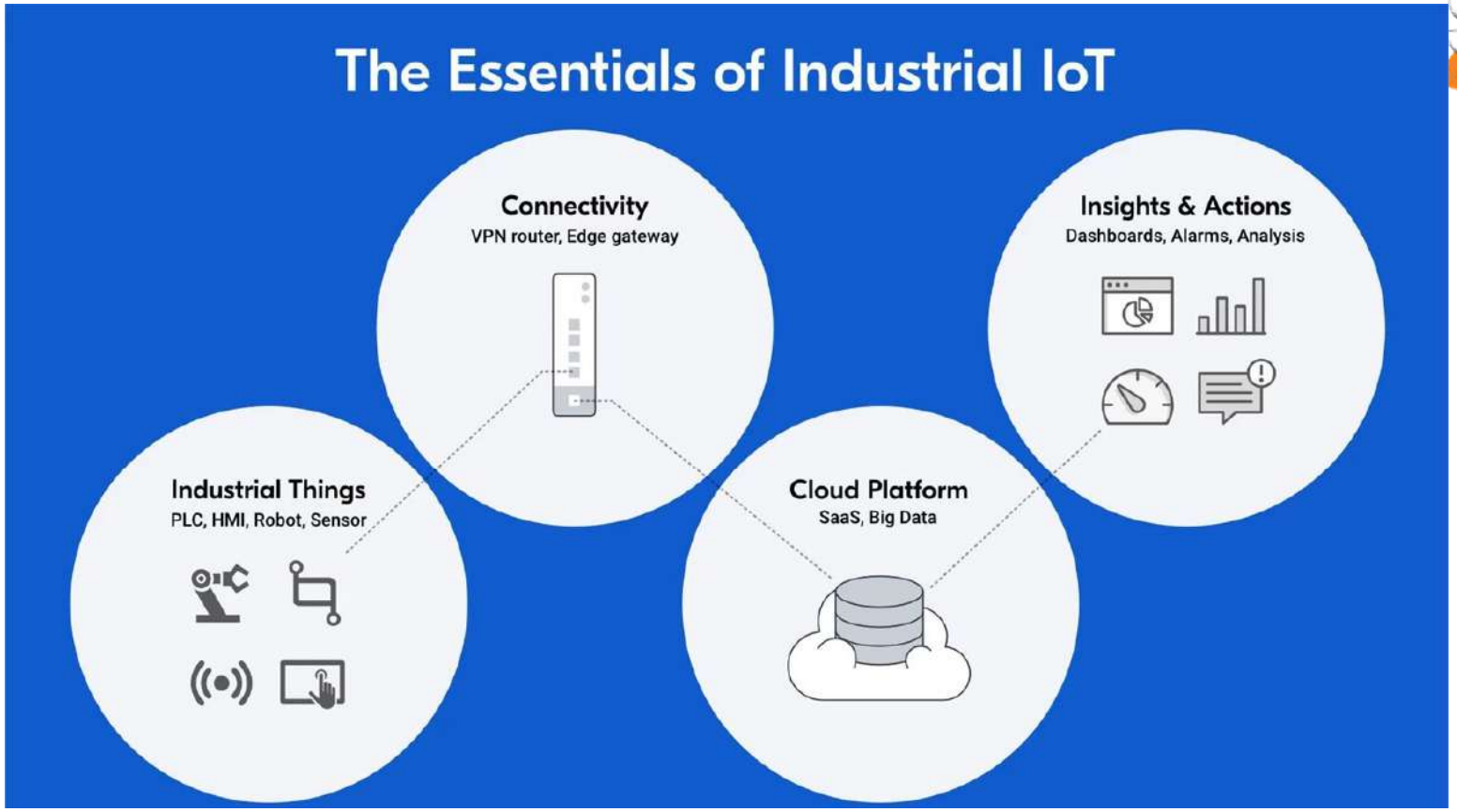
TOPIC 5 – Automation in Industrial aspect of IOT

Consider an example,

Explain the process

What is industrial automation in IoT?

Industrial automation's main aim is to reduce the necessity of people in manufacturing processes. This allows production to speed up, increase in safety, and better utilize their resources and industrial analytics in manufacturing.


The Essentials of Industrial IoT
Connectivity
VPN router, Edge gateway
Insights & Actions
Dashboards, Alarms, Analysis
Industrial Things
PLC, HMI, Robot, Sensor
Cloud Platform
SaaS, Big Data

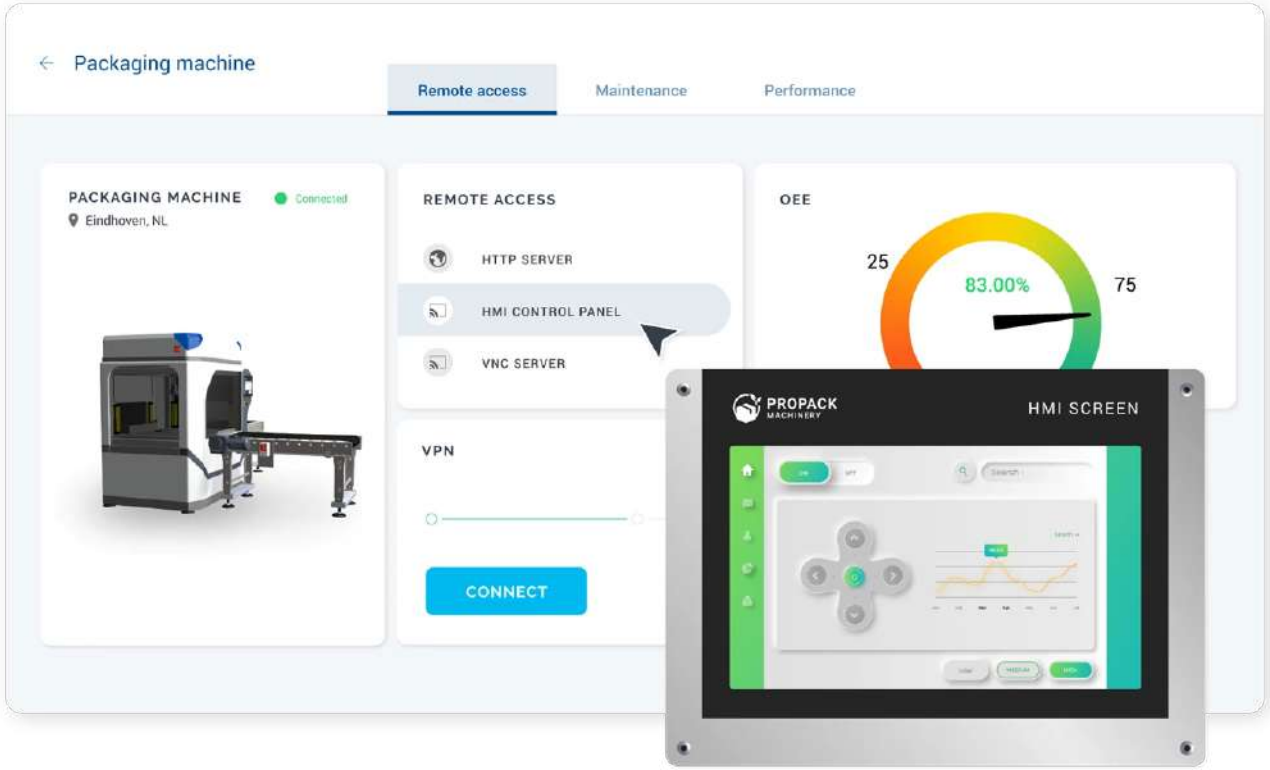
The essentials of an Industrial IoT solution

Typically IIoT solutions include:

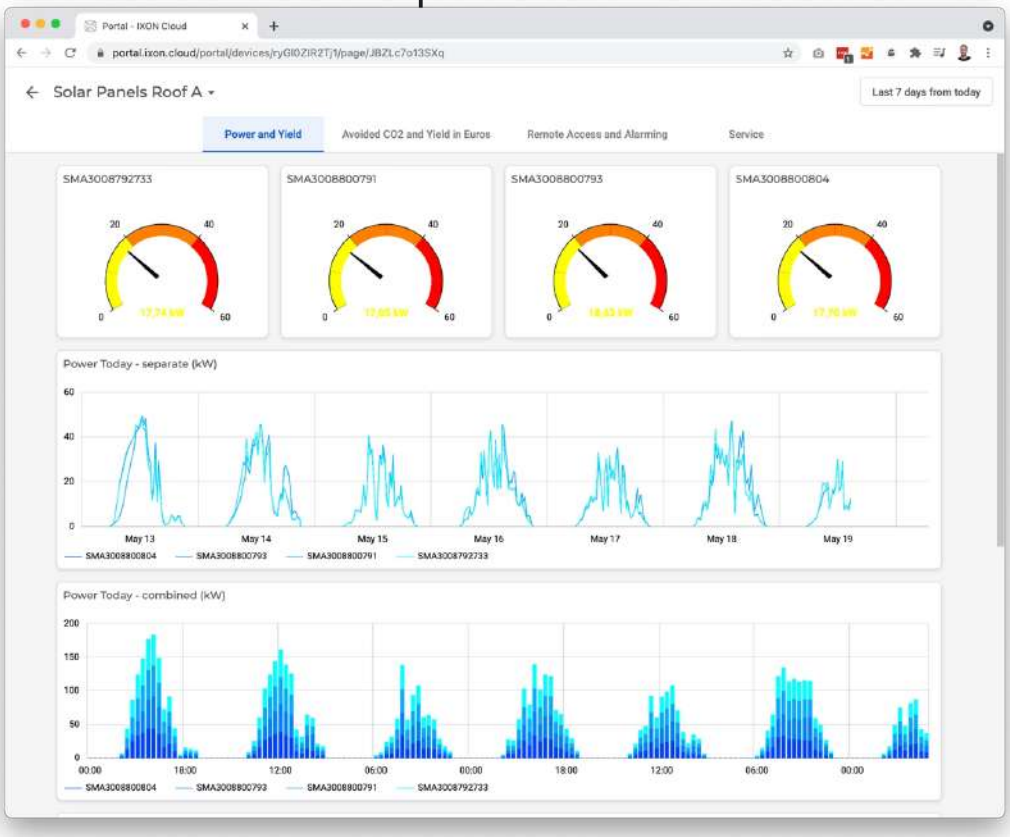
- Industrial 'things' – Internet-enabled devices like PLCs, IPCs, Human Machine Interfaces (HMI), robots, vision cameras and sensors.
- Connectivity – Connecting 'things' to the internet via 4G/cellular, Wi-Fi or ethernet connections.
- Data – Data, and how it is collected, stored and processed using edge devices, is central to the value of IIoT.
- A cloud platform – Key to IIoT is a centralised and secure cloud platform for hosting the data and enabling remote services
- Analytics dashboard –– For analysing data and monitoring machines.
- Intelligence and action – The collected data must be analysed by either humans or smart functions to send out alarms or triggers to any other system.

Remotely solve PLC / robot problems if a custom-built machine is down

Publish new functionalities on the HMI screen for customers abroad



Predict machine maintenance and analyse upfront which part needs to be replaced



ASSESSMENT

Find the Process

References

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Thank You