IEB Solutions

Connected Machines, People and Data

Who We Are?

- We are IT Services Provider. We specialized in ERP implementation, integration, customization and post-implementation Support.
- We also cater Industrial IoT solutions in association with Tech-Metro.
- We specialized in acquiring data from any machine and integrate it with your ERP, HRMS or Custom System (Excel).
- We also offers various data adapters and innovative solutions to Enterprises for improving machine availability and OEE, Energy Utilization.

IEB Solutions

20 million
Records per day

IEB Solutions

40+
Clients*

200+
Devices*

What We Provide?

We offer instant and scalable solution to improve the machine, operator and plant productivity. Our solution also help to improve the energy consumption.

Our solution target following pain areas:
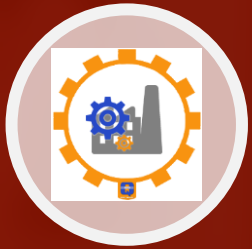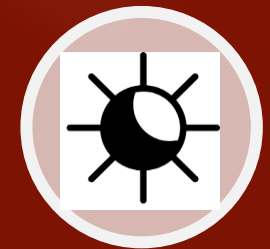
Poor Visibility on Shop floor

Manual Data Collection

Inaccurate and unreliable data

Person Specific Process

Night shift production issues

High energy consumption

Machine fail alarms

Get the data from additional sensors

Investment made on the IT infrastructure

Our Solution

Data Sources

PLCs & Controllers | Legacy machines / relays | Energy meter

Tech-Metro's Data Acquisition Adapter Modules

IEBS' Data Augmentation Modules

IIOT Platforms

E R P

HRM Software

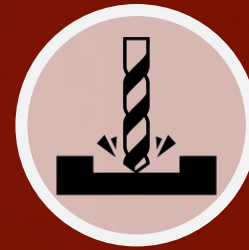Inspection / QA | Temperature | Pressure | Flow meter

Key Benefits

Improve machine availability and OEE

Identify and act on the causes of downtime

Identify the operator's training needs

Prevent feed/spindle override misuse

Performance evaluation of machine

Use of the existing infrastructure

Seamless integration with homegrown IT systems like ERP

Use Case Distribution

40

Connected Plants

Productivity Improvement	35
Energy Optimization	10
Quality Improvement	5

15%
OEE Improvement

7%
Energy Saving

10%
Quality Improvement

Pcomm Suit

IEB Solutions

Pcomm-E
Edge Computing
Smart Node
Digitizes the Machine
in 4-8 Hours

Pcomm-S
PC Based
Software Adaptor
Digitizes the Machine
in 2-4 Hours

IEB Solutions
Pcomm
Suit

Pcomm-G
Standalone Industrial
Gateway
Digitizes the Machine
in 2-4 Hours

Pcomm-E Edge Computing Smart Node

- Digitize legacy machines within minutes

- Smart Edge Computing Device

- Data In Information Out

- Characterize device behaviour through Setup Wizard

Highlights:

- Predefined behaviours and configurations

- RS232, RS485 simultaneous interfaces

- Up to 4 digital inputs or 4 analog inputs

- Wireless protocols – https, UDP, MQTT

- Data Security - TLS 1.2 and SHA 256

- Data rate supported as fast as 500ms (2Hz)

- Ideal form factor - 105mm x 45mm x 40mm
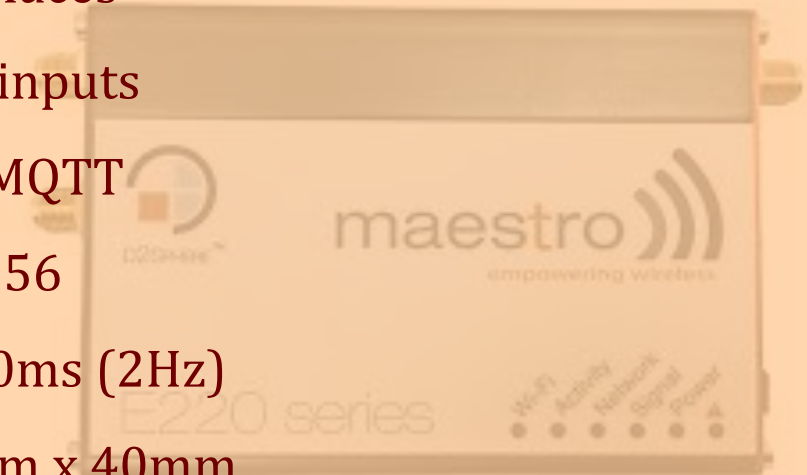
Pcomm-E Configurations – Device Selection Screen

(You can Select the Device to be configured Device/Wi-Fi/Cloud)

Pcomm-E Configurations – Device Configuration Screen

PComm-E Configurations – Device Configuration Screen

PComm-E Configurations – Cloud Configuration Screen

PComm-S PC Based Adapter
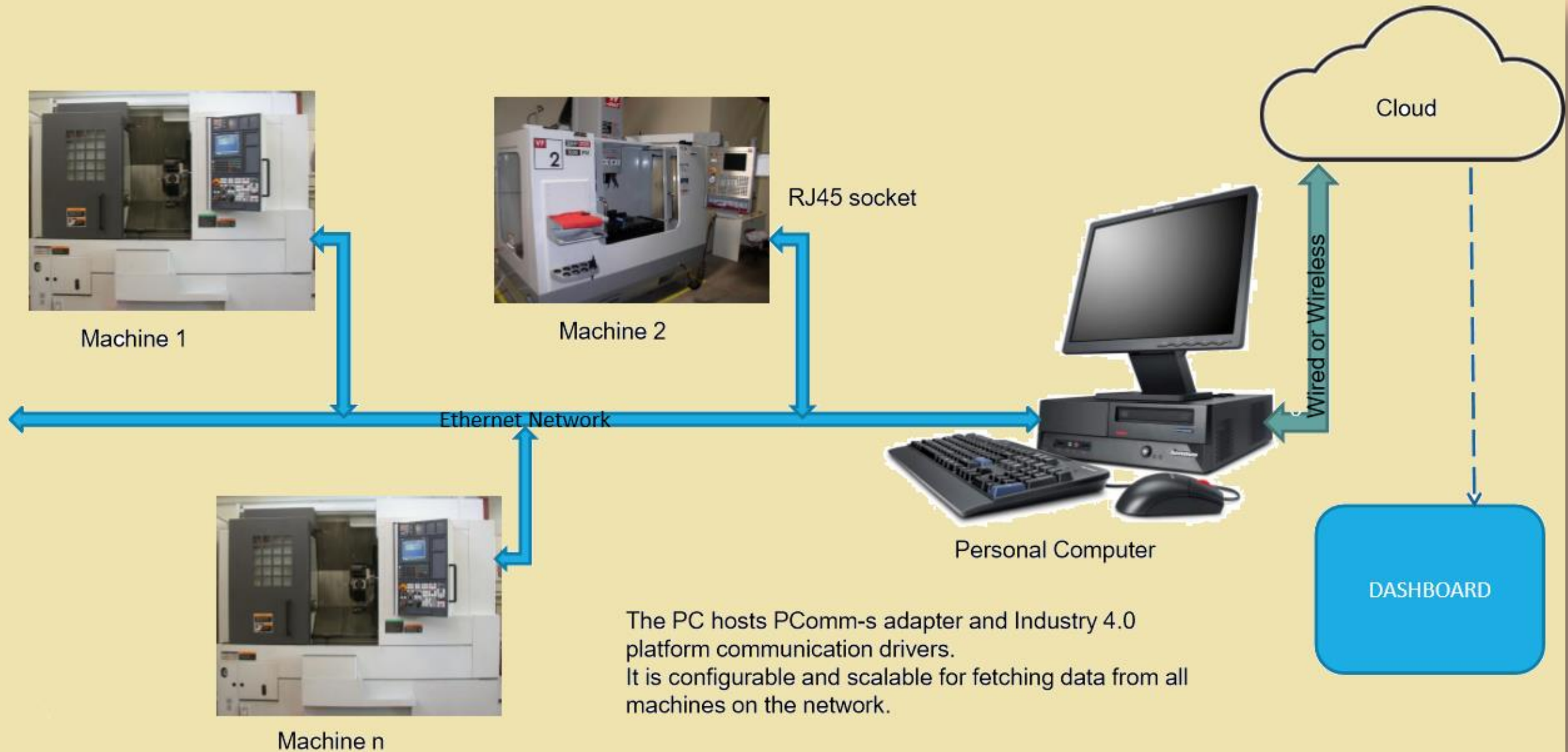
Data Sources supported

- Controllers
  - ✓ Fanuc – 0i, 16i, 18i, 31i
  - ✓ Siemens
    - S7 200, 300, 400, 1200, 1500
    - 828D, 840D
    - Simotion

  - ✓ Allen Bradly Micrologix series
  - ✓ Mitsubishi
  - ✓ Delta
- HMIs – Koyo, Mitsubishi, Delta
- Drives
- Energy Meters
- Sensors
- Embedded Controllers

Protocols Supported

- Focas
- Ethernet
- Profinet
- Profibus
- Modbus RTU
  - ✓ RTU - RS485, RS232
  - ✓ TCP
- Ethernet/IP
- OPC UA
- MTConnect

80% Machine Coverage

PComm-S PC Based Adapter

Machine 1

Machine 2

RJ45 socket

Machine n

Ethernet Network

Personal Computer

Cloud

Wired or Wireless

DASHBOARD

The PC hosts PComm-s adapter and Industry 4.0 platform communication drivers.
It is configurable and scalable for fetching data from all machines on the network.

PComm-G Standalone Industrial Gateway
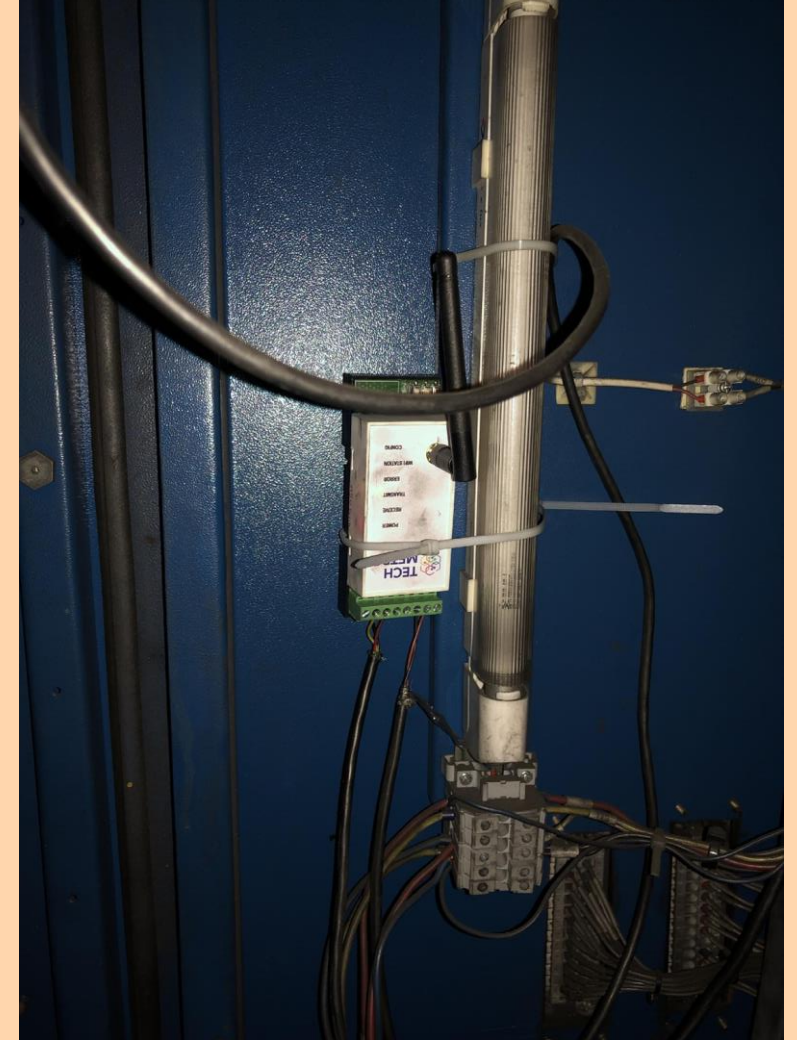
Highlights:

- LAN / WAN / WMAN

- GSM – 3G Fall-back over 2G

- RS485 – Modbus RTU

- 2 GPIO

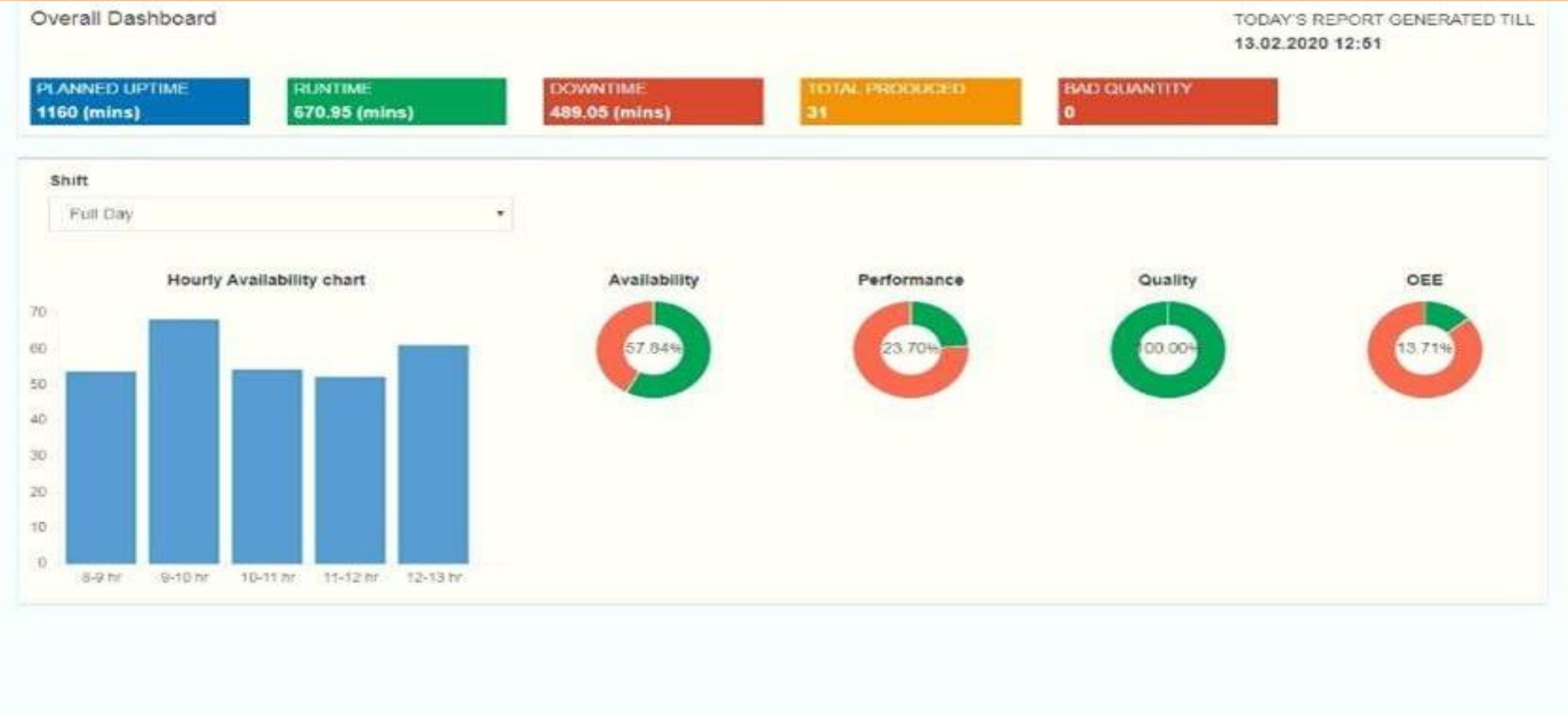- OpenVPN

- Load Balancing

- Configuration Scalability

- Standalone Gateway for Smart Machines

- Edge Computing Application

Installation Pictures at site

Overall Dashboard of the Application

Machine wise Dashboard

Thank You!

IEB Solutions

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