Results

Wireframes

Solution

Challenge

Use Case

Production Monitoring System (OEE)

With

Digital Factory Operating System (DFOS™)

1

Data is delayed by 24 Hrs.

MIS reports and minor exceptions are made for n-1 day using conventional non IoT based system.

2

Remote monitoring of critical parameters not available.

For monitoring and analysis of critical parameters Gemba is always done which also results in delayed action on process optimization.

3

Many modalities used for communication of exceptions.

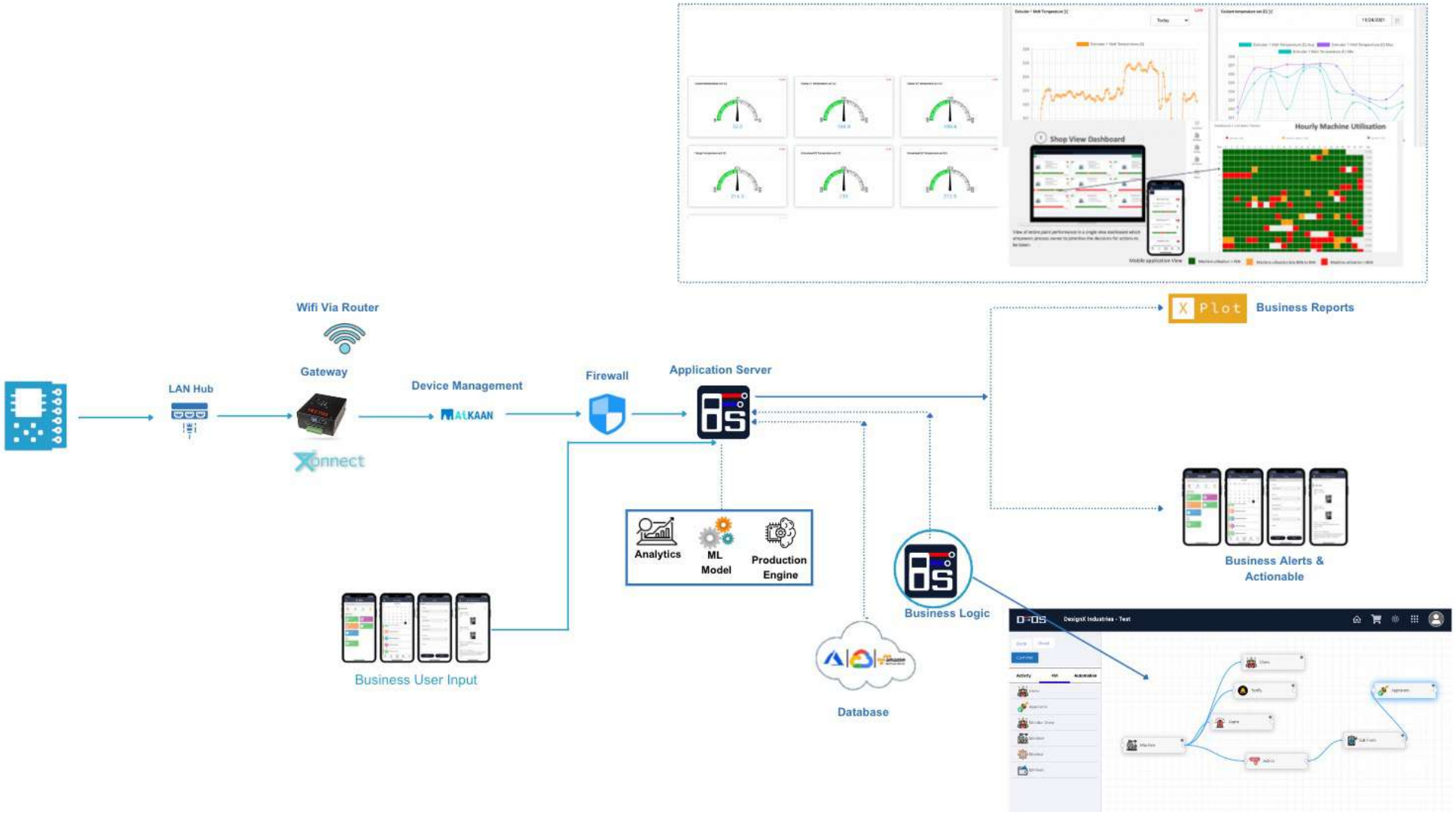
Connectivity of communication within shop floor & support functions is done using various modalities like WhatsApp, Email, Paper based tickets etc.

4

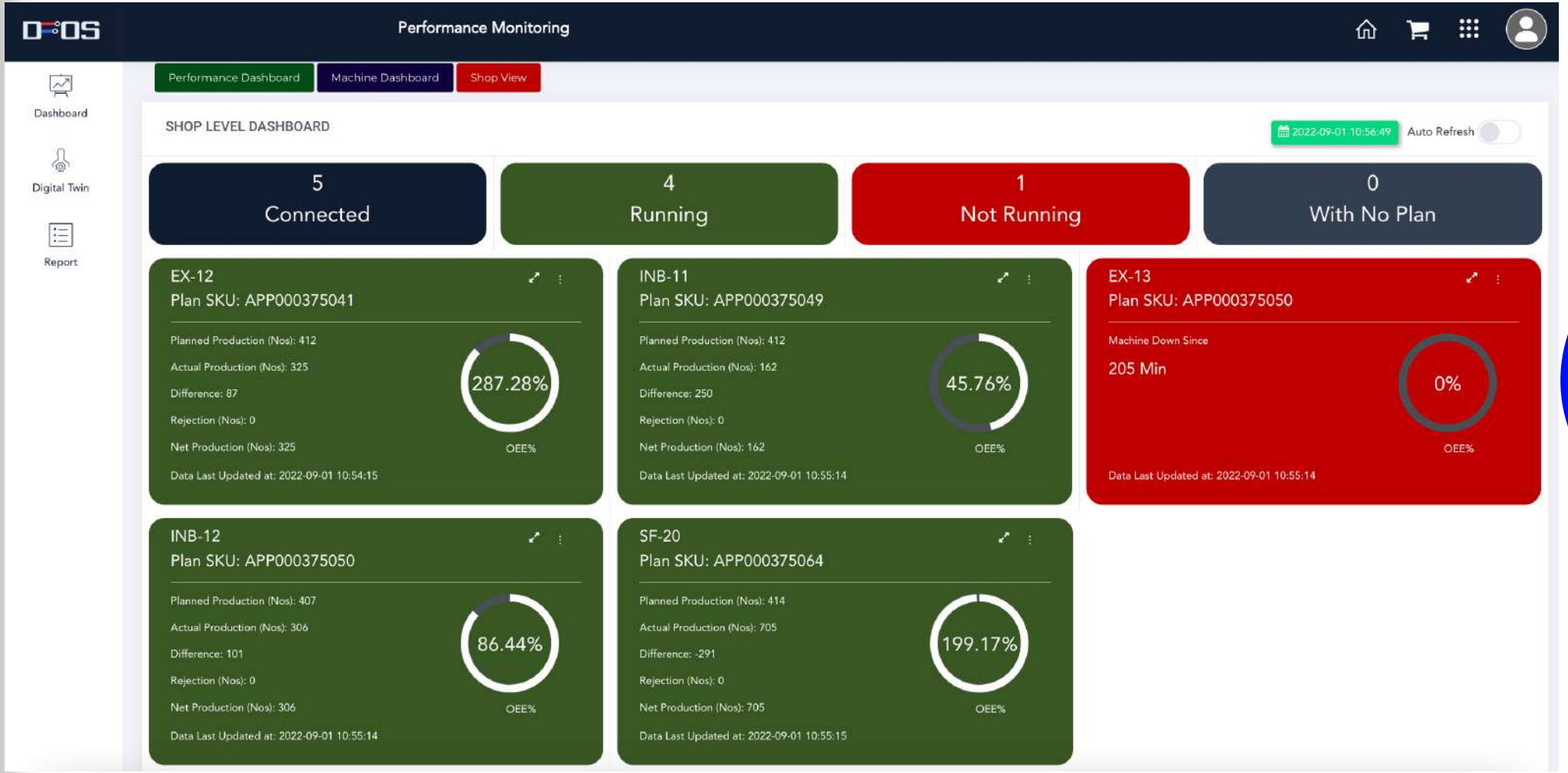
Performance Data Traceability & Impact of actions taken not visible.

Limited BI functionalities to track and trace performance data on real time basis and visible impact of actions taken is not evident.

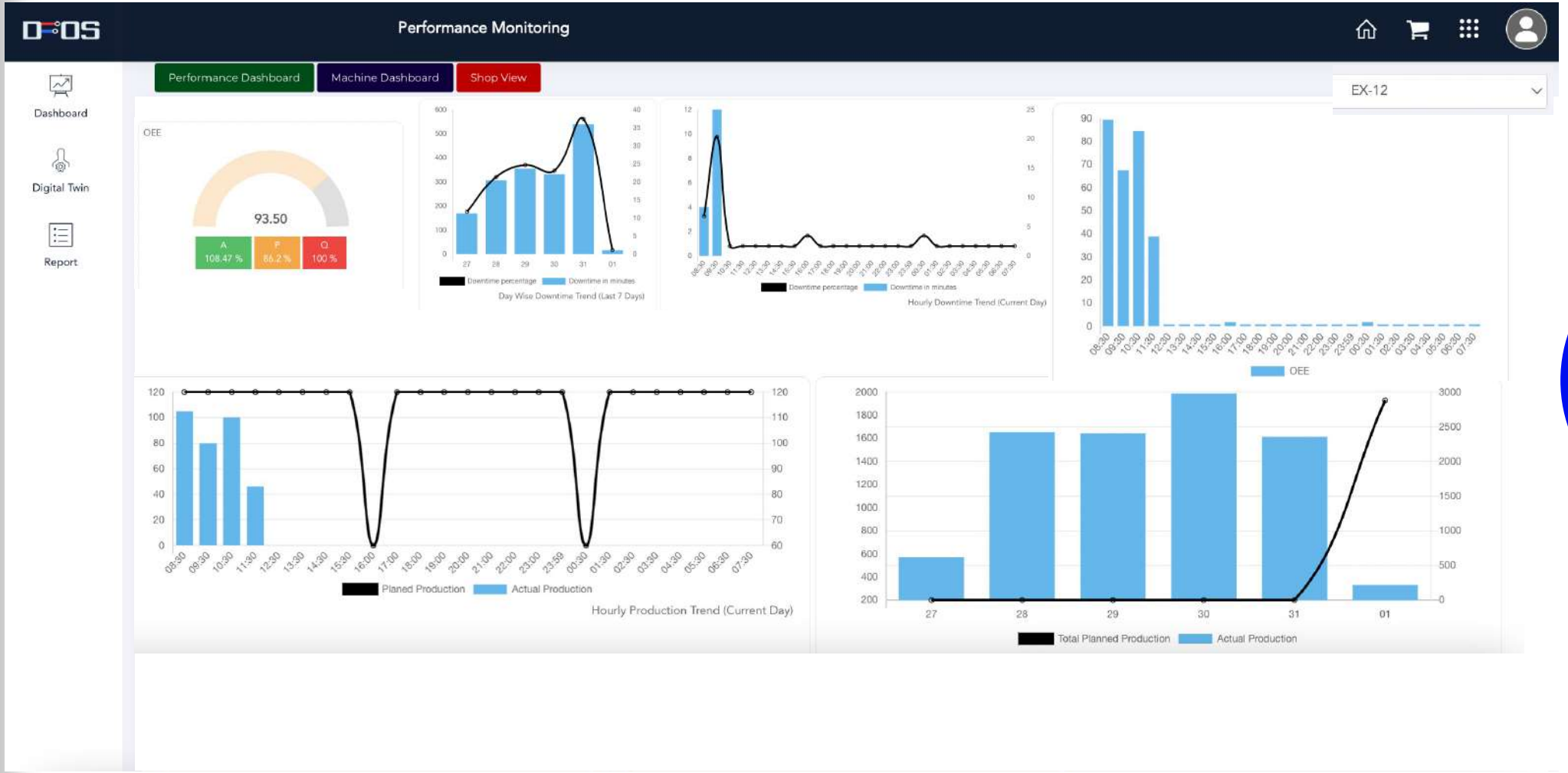
Solution Architecture



Shop level Dashboard View



Live Dashboard – Machine Level



Results

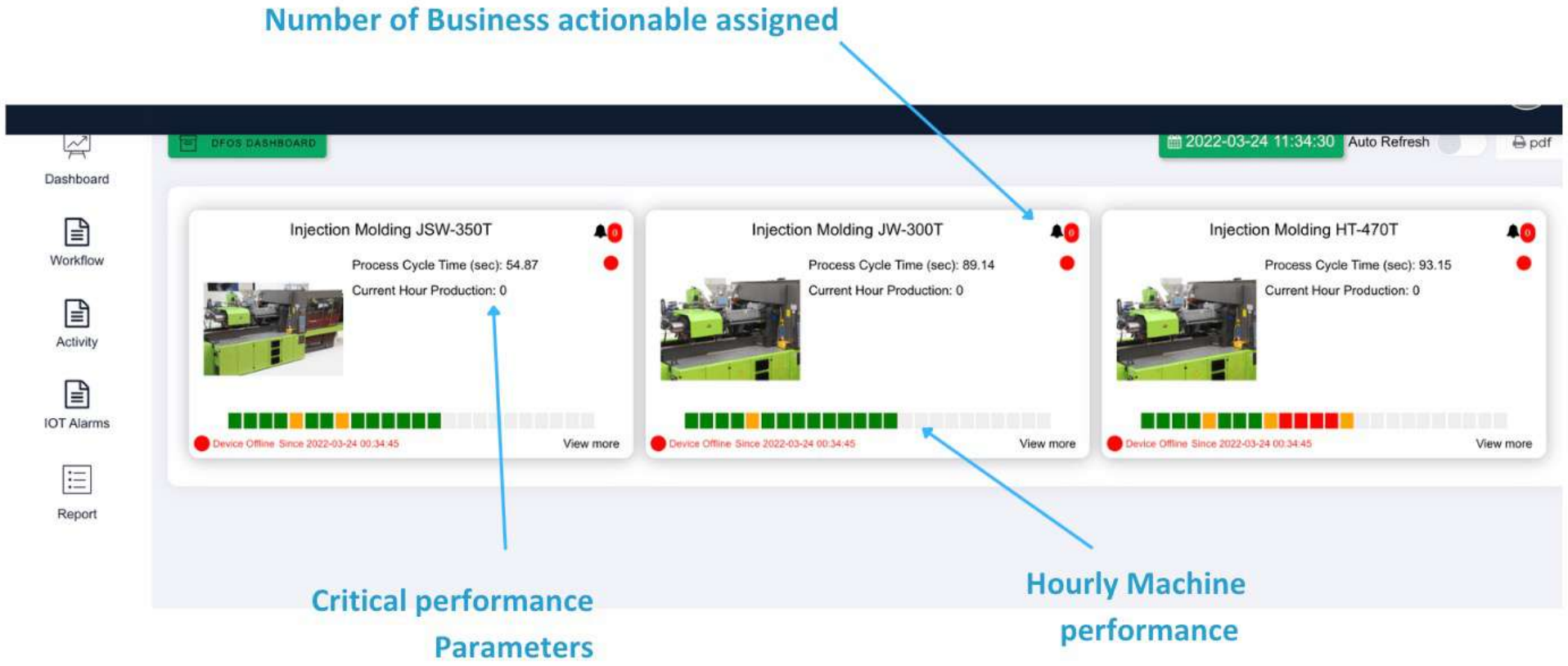
Wireframes

Solution

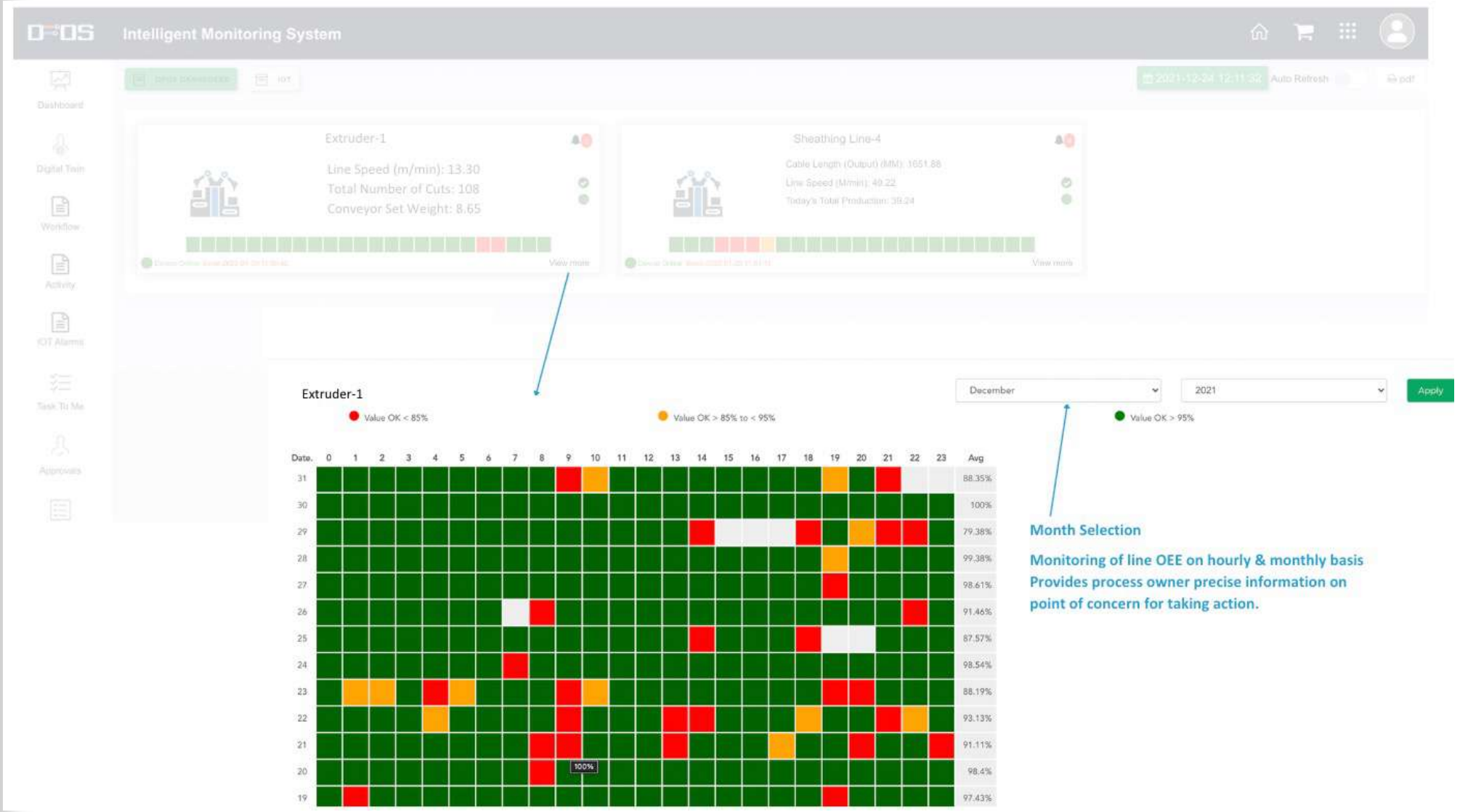
Challenge

https://www.designx.in

IIoT Live Dashboard for Process Parameters



IIoT Live Dashboard for Process Parameters



Month Selection

Monitoring of line OEE on hourly & monthly basis Provides process owner precise information on point of concern for taking action.

Results

Wireframes

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Challenge

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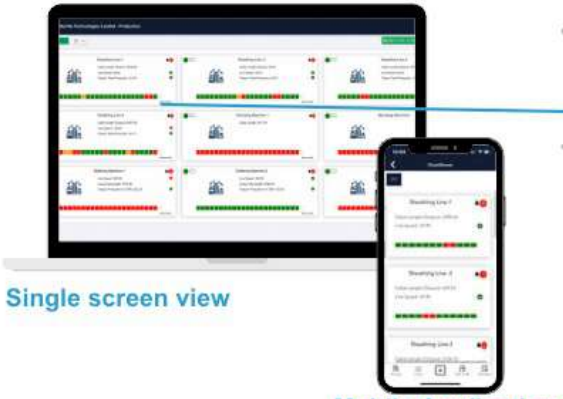
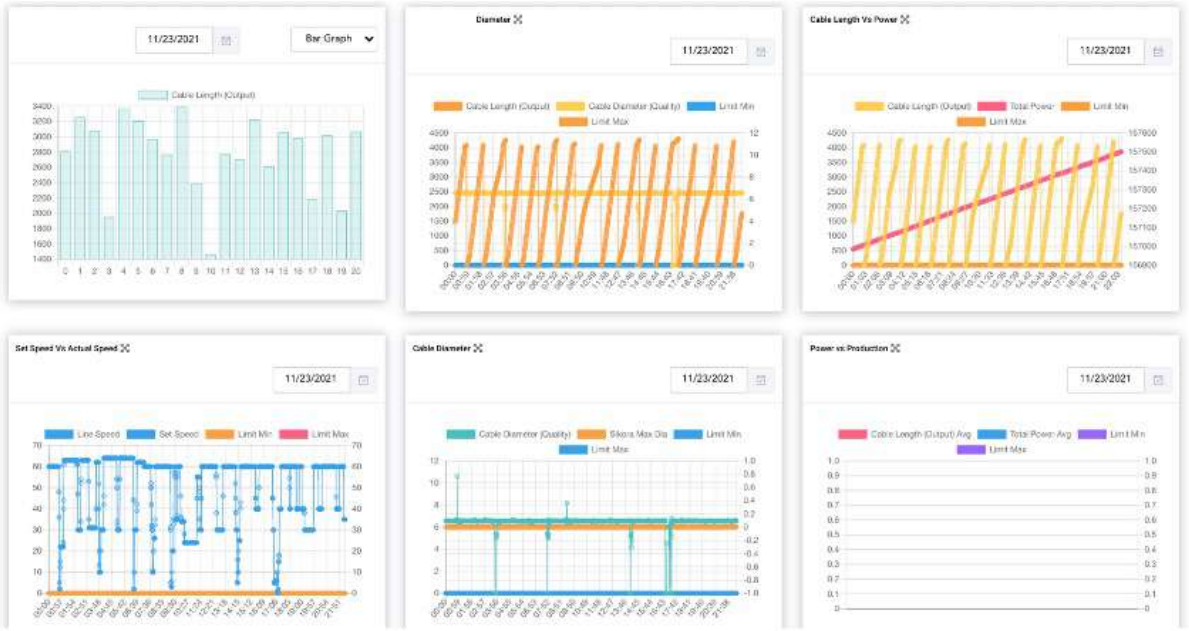
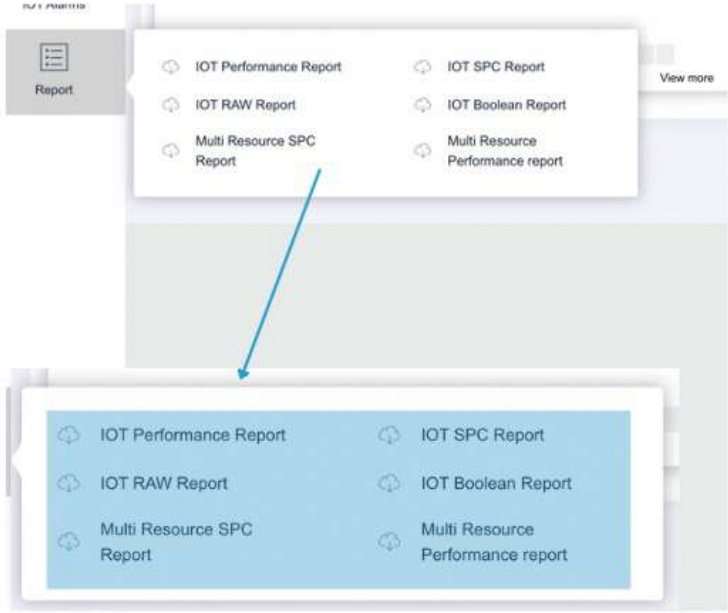
IIoT Live Dashboard for Process Parameters







Results

Wireframes

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Challenge

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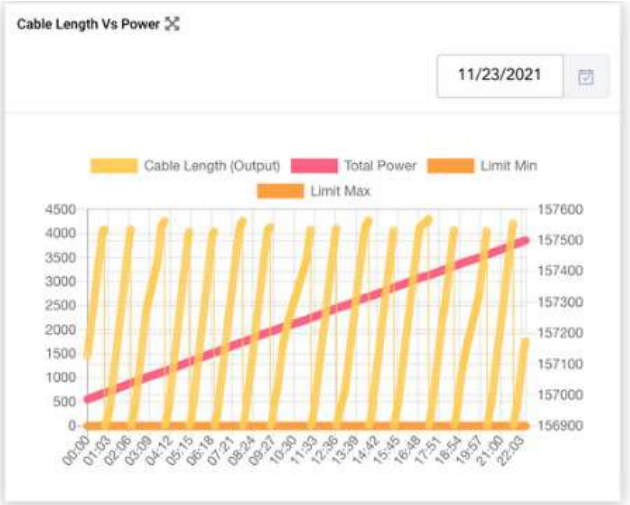
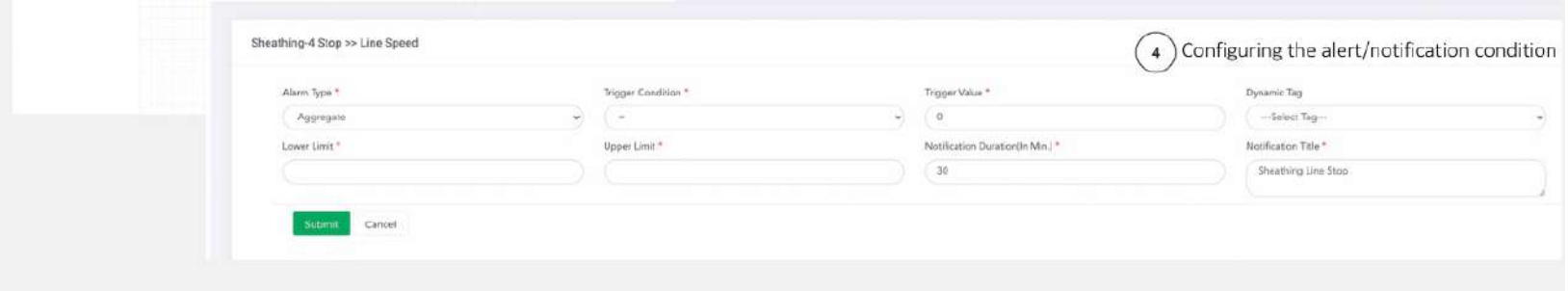
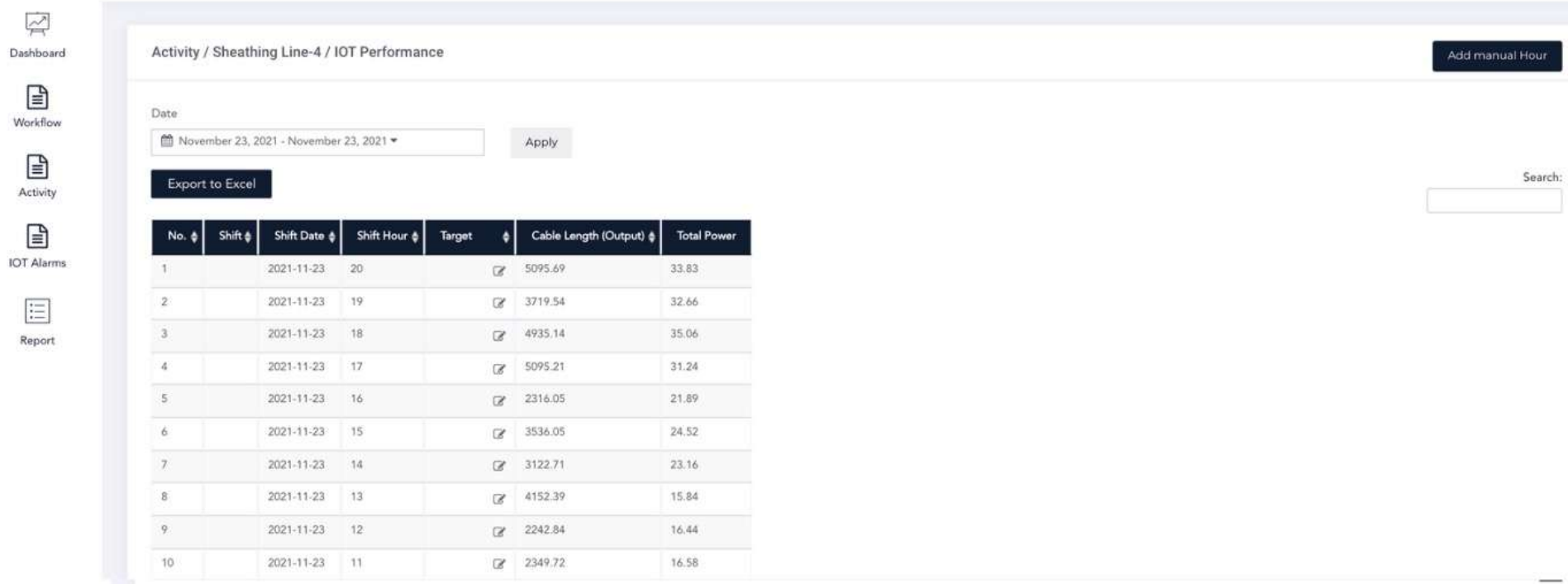


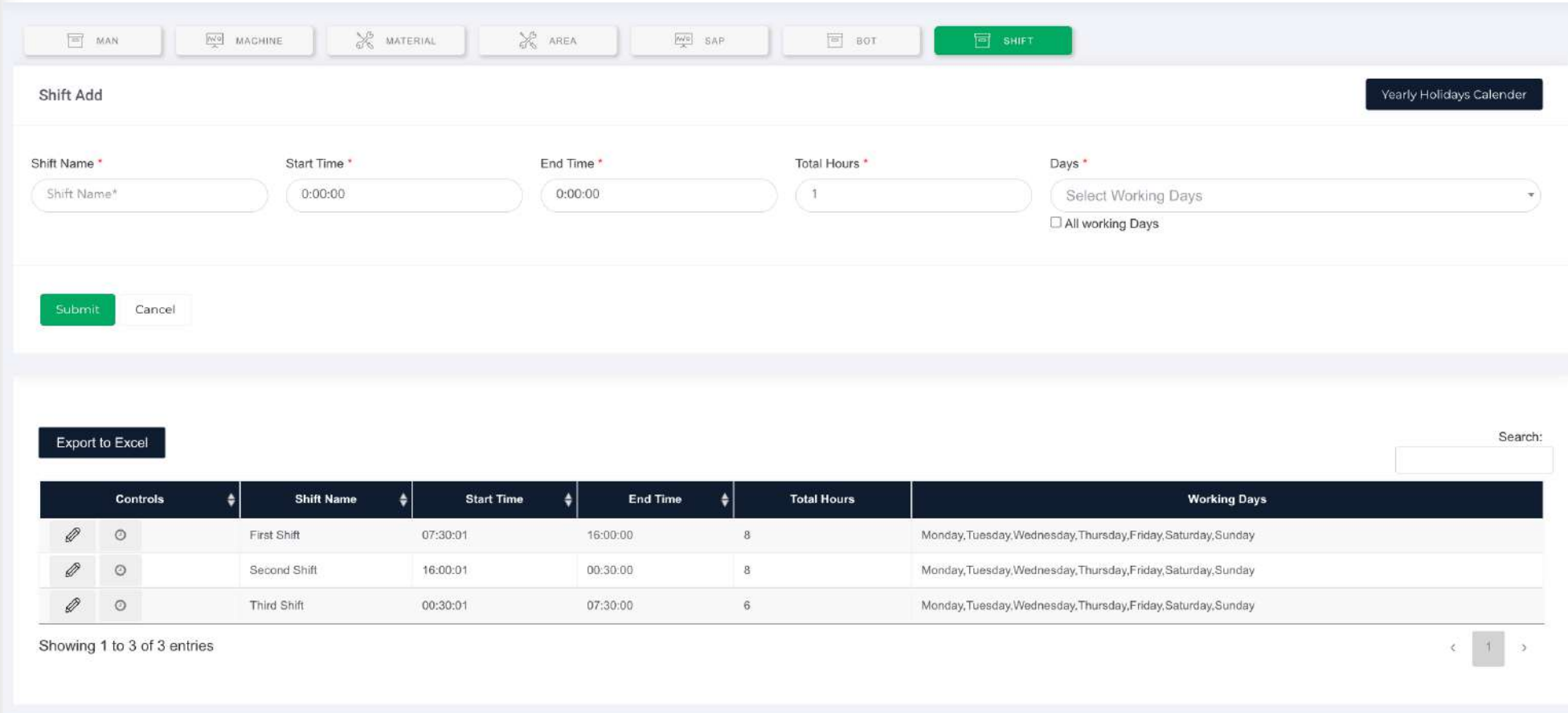
Power consumption




Dashboard
Workflow
Activity
IOT Alarms
Report
Activity / Sheathing Line-4 / IOT Performance
Add manual Hour
Date
November 23, 2021 - November 23, 2021
Apply
Export to Excel
Search:
No. | Shift | Shift Date | Shift Hour | Target | Cable Length (Output) | Total Power
1 | 2021-11-23 | 20 | 5095.69 | 33.83
2 | 2021-11-23 | 19 | 3719.54 | 32.66
3 | 2021-11-23 | 18 | 4935.14 | 35.06
4 | 2021-11-23 | 17 | 5095.21 | 31.24
5 | 2021-11-23 | 16 | 2316.05 | 21.89
6 | 2021-11-23 | 15 | 3536.05 | 24.52
7 | 2021-11-23 | 14 | 3122.71 | 23.16
8 | 2021-11-23 | 13 | 4152.39 | 15.84
9 | 2021-11-23 | 12 | 2242.84 | 16.44
10 | 2021-11-23 | 11 | 2349.72 | 16.58

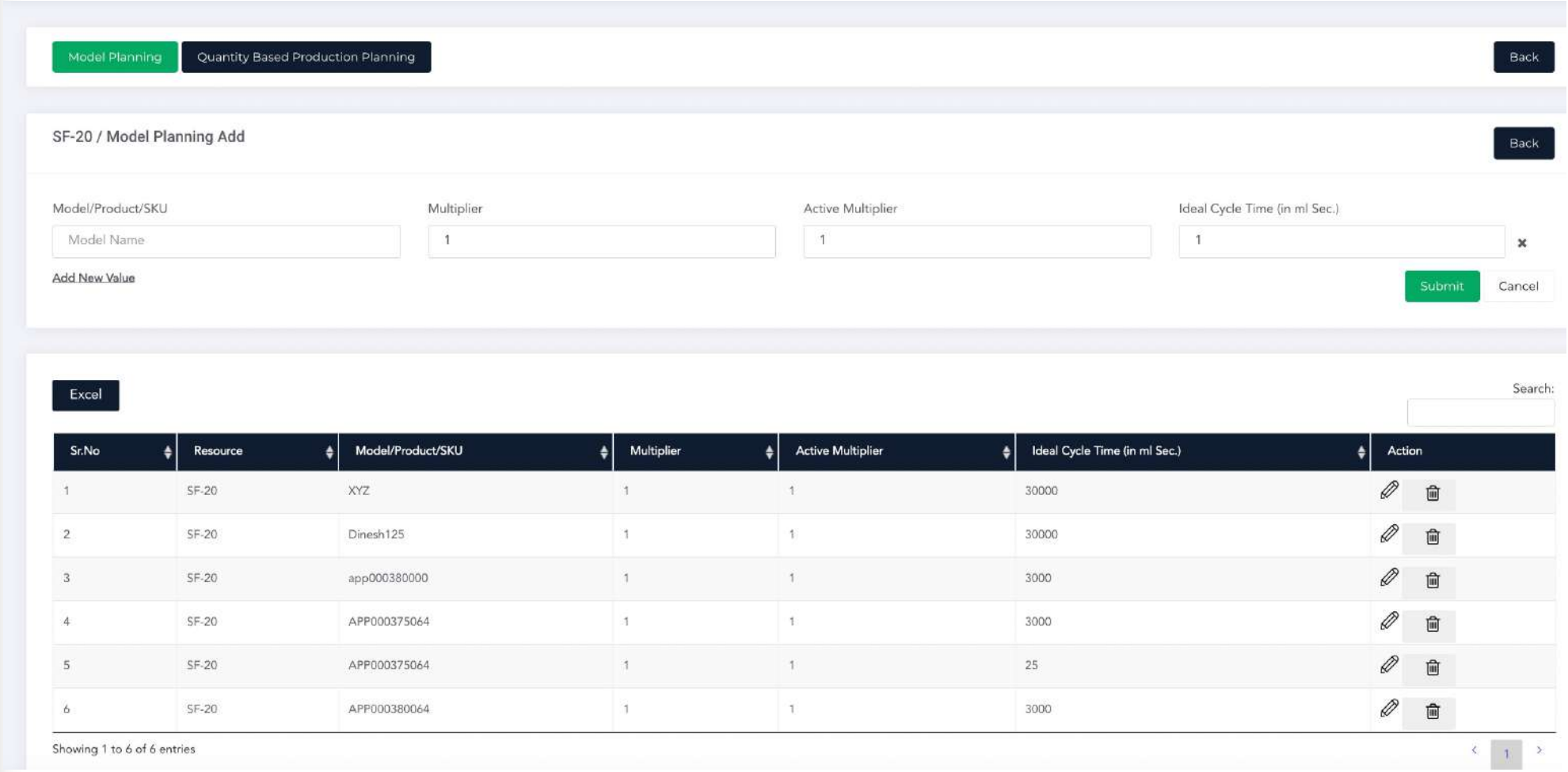

Workflow
Activity
IOT Alarms
Report
Activity / Sheathing Line-4 / IOT SPC
Critical Parameter Average & Range
Add manual Hour
Date
November 23, 2021 - November 23, 2021
Apply
Export to Excel
Search:
No. | Shift | Shift Date | Shift Hour | Extruder A Temperature (Zone-1) (min) | Extruder A Temperature (Zone-1) (max) | Extruder A Temperature (Zone-1) (avg) | Extruder A Temperature (Zone-2) (min) | Extruder A Temperature (Zone-2) (max)
1 | 2021-11-23 | 20 | 34.00 | 34.00 | 34.00 | 34.00 | 34.00
2 | 2021-11-23 | 19 | 34.00 | 34.00 | 34.00 | 34.00 | 34.00
3 | 2021-11-23 | 18 | 34.00 | 34.00 | 34.00 | 34.00 | 34.00
4 | 2021-11-23 | 17 | 34.00 | 34.00 | 34.00 | 34.00 | 34.00
5 | 2021-11-23 | 16 | 34.00 | 34.00 | 34.00 | 34.00 | 34.00
6 | 2021-11-23 | 15 | 33.00 | 34.00 | 33.92 | 33.00 | 34.00

Shift Creation and Yearly Holiday calendar planning to evaluate availability.



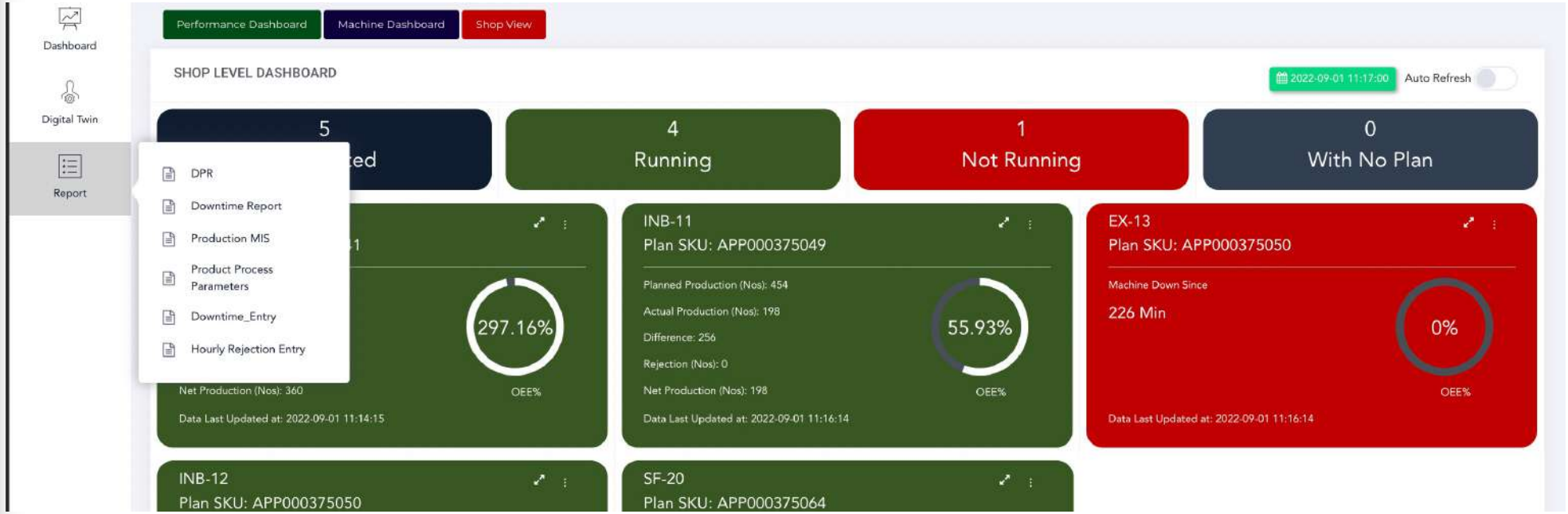
SKU based Production planning

Time Based, Quantity Based and Shift Based Planning Methodology available



Various reports for in depth insights

Daily Production Report (DPR)
MIS
Process Parameters (On-Change) Report
Downtime and Rejection Reports



Results

Tangible

15%

Increase in Machine availability

6.75%

Improvement in overall OEE

In-tangible

Realtime MIS and DPR generation

10X

Faster communication and business actions due to real time alerts and notifications.

ROI

Within 6 months post implementation