TESTMOTORS
ELECTRIC MOTORS AND GENERATORS
PREDICTIVE MAINTENANCE

TestMotors

BARCELONA SPAIN

About

Test Motors is a company specialized in the
predictive maintenance of electric motors and generators. Our products and
services detect any faults in your electric motors and generators before they
become detrimental to your production cycle, and we advise you on how and when
to repair them. Like that, we maximize the output of your production plant and minimize
maintenance costs.
Test Motors plays an important role in the industrial
revolution 4.0 (IOT), as it manages data million motors monitored and that
allows us to generate maintenance and production strategies that can maximize
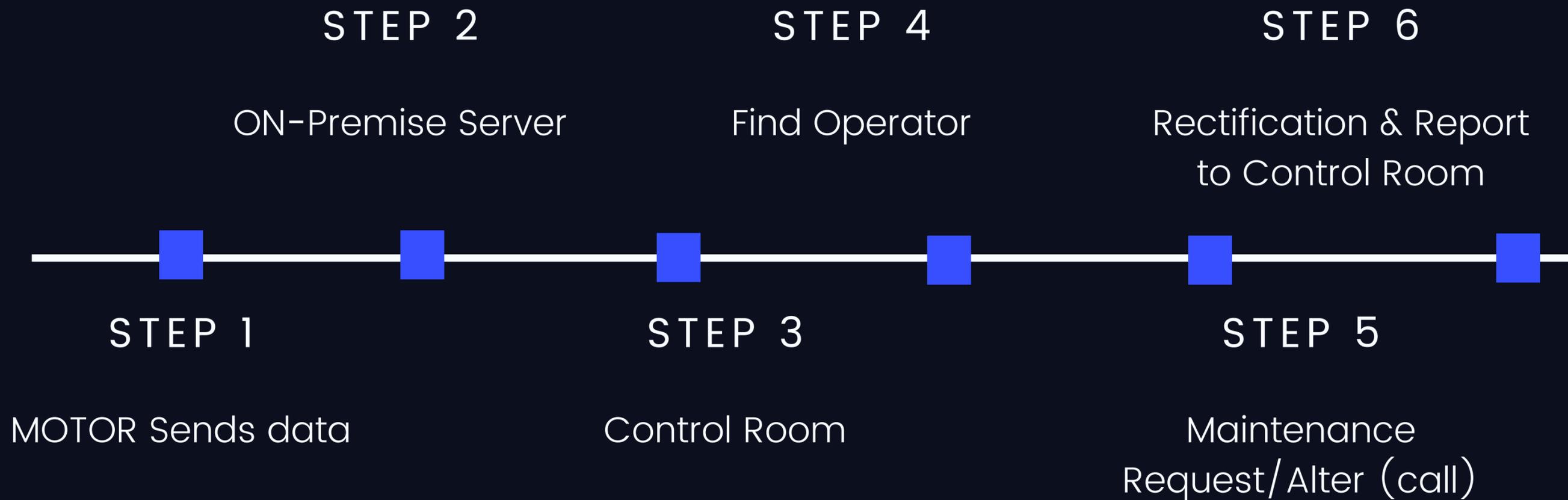the results of the company.

Problem Defination.

Test Motors was facing following issue;

- Desktop based App, so to check and track alert was limited to control room of factory.

- Cloud connectivity wasn't there to give access outside of factory, so after working hours it was really difficult to manage urgent maintenance requests.

- No real time tracking on device (Mobile).

- Role Management wasn't there to restrict access based on designation

- Sensor was wire based which leads to extra overhead of maintenance

- As the solution wasn't cloud based every company/factory has to maintain ON-Premises server.

- Less Interactive Graph to display the behavior of motors

Old System

STEP 2

ON-Premise Server

STEP 4

Find Operator

STEP 6

Rectification & Report
to Control Room

STEP 1

STEP 3

STEP 5

MOTOR Sends data

Control Room

Maintenance
Request/Alter（call)

Solution Built

We have design solution to address all the issues in old system, and build a plug and play solution to remove all overhead;

USED

SENSOR FROM TEXAS INSTRUMENTS (USA), WITH THE HELP OF THE SENSOR WE ADDRESS FOLLOWING ISSUES

a. Real-time data sync with cloud

b. Primary data is easily capture from motors like: Temp, Z-vibration, X-vibration etc

c. Small in size without any addition wires

d. Zero Maintenance

MOBILE APPLICATION

a. Can access Motor Data and Alert on the fly

b. Implemented Google Chart for clear Picture on Motor Data

c. Maintenance History Tracking and Note

d. Role Management to address access level and rights

e. Part based alert for more clear understanding

f. Configure and Manage Sensor with one tap.

g. Map Implementation for owners to see factory with diff alerts in real-time

WEB BASED DASHBOARD TO SOLVE MANAGEMENT RELATED ISSUES

a. Dashboard for control room

b. Dashboard for TestMotor Admin

c. Dashboard for distributor

New System

STEP 2

Find Operator（Automatic）

STEP 1

Motor To Cloud

STEP 3

Rectification and Reporting

OLD SYSTEM

NEW SYSTEM

**20
Mins**

PROCESSING TIME

One Request

**05
Secs**

PROCESSING TIME

One Request

6 Steps Process (Partial Automatic)

3 Steps Process (Automatic)

Out Come

Technologies

Codigniter (PHP)

SWIFT

ANDROID SDK

WIFI Sensor

FIREBASE

MYSQL

AWS

SCREENS