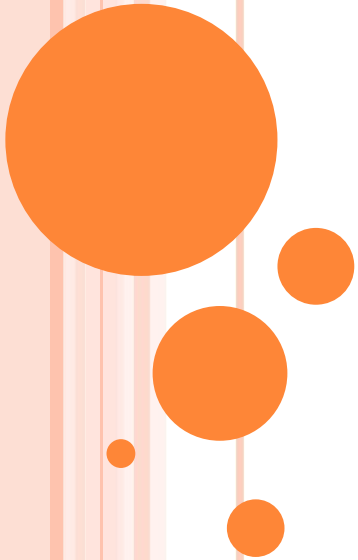
Road Line Logistics

IoT Enabling Fleet Management System



About Company

- This company provides pan India material transport facility using its fleet of refrigerated trucks.
- They have a Fleet Management System to manage the deliveries.
- This company has thousands of trucks and hundreds of clients across India.
- Trucks do thousands of trips per day across India.

Business Problem

- Company is having the problem of large penalties being imposed by their clients because of delay in material delivery, material damage, and material being stolen.
- These penalties are running into crores.
- They want a solution to be able to weed out false claims and quickly pay verified claims.

Proposed Solution

- We proposed IoT enable their Fleet of trucks.
- To collect data from trucks and to determine.
  - If thefts are happening in the trucks.
  - If any material is actually getting spoiled.
  - Is there deviation from defined routes.
  - Are trucks being opened at undefined locations.

Hardware/Data Required

- We proposed to install IOT devices having the below sensors in the trucks to capture relevant data. The devices will be GSM/GPRS enabled and will be able to communicate with Platform on the cloud. The devices will also be BLE enabled to sound an alarm in driver cabin if truck carriage door is opened at unscheduled location.

Sensors & Purposes:

- **Temperature Sensor** – Record the temperature inside the truck.
- **Humidity Sensor** – Record the humidity inside the truck.
- **Proximity Sensor** - Record when an object moves inside the truck.
- **Power** – To maintain the constant voltage for the material.
- **Reed switch** – Records whenever the door is closed /opened.
- **PIR(Passive Infrared)** – Records when a human intervention.
- **LDR(light dependant resistor)** – Records the lightening inside the truck.
- **GPS** - record the location of the truck at any point of time.

How this information helps

This information captured will help company Fleet Manager to

- Fleet Health management.
  - Timely delivery trends.
  - Security .
    - GPS location.
    - Door open alarm.
- Material Health.
  - Adherence to company conditions.
  - Adherence to humidity standards.
  - Adherence to light standards.

•Analytics.

- Delivery Performance.

-Theft Prevention.

- False Claim Prevention.

•Strategic Planning.

- Fleet performance trends.

- Strategic Decision making.

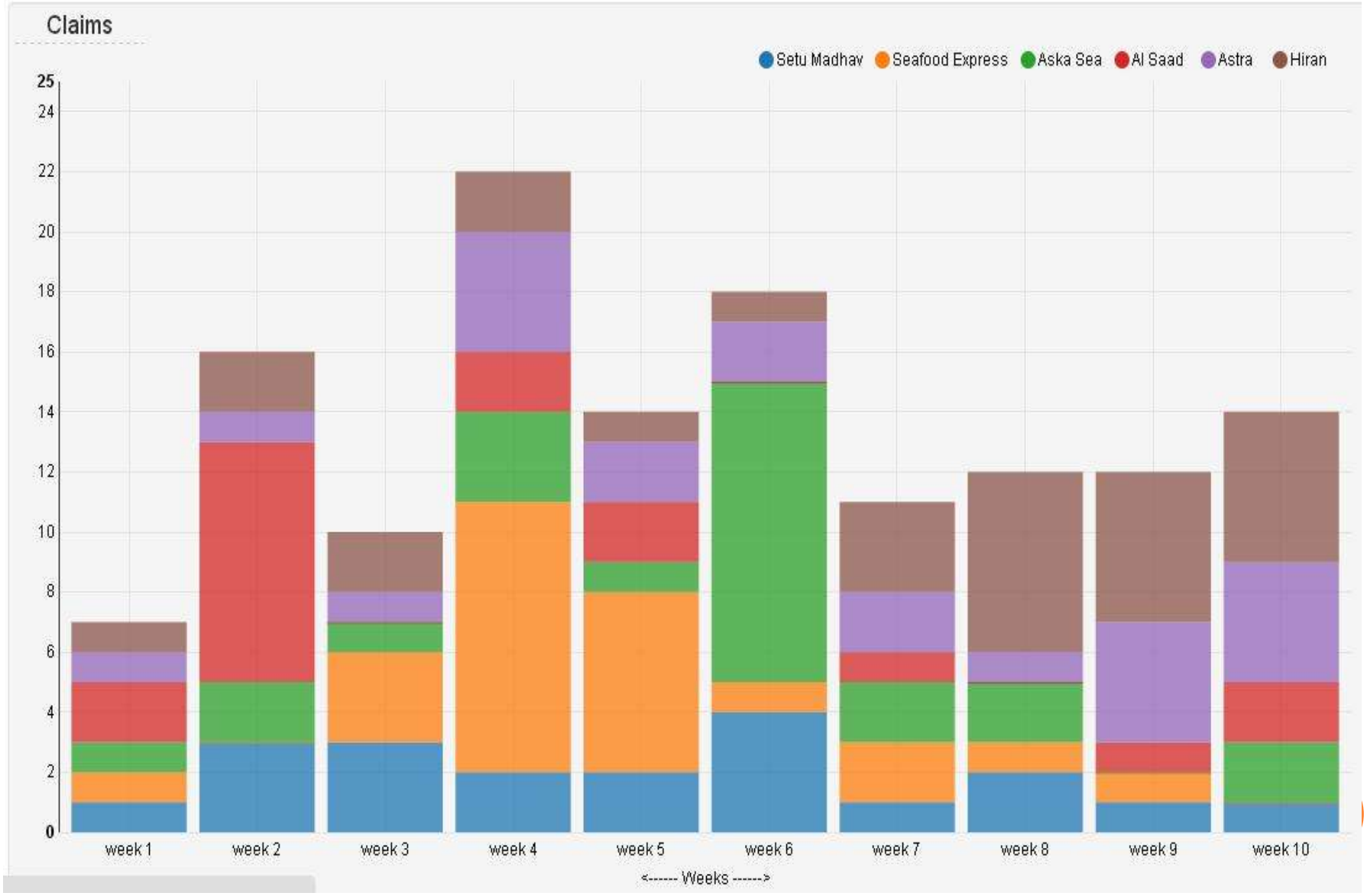
- Planning based on customers and material type.

Sample Node Data given by the IOT device

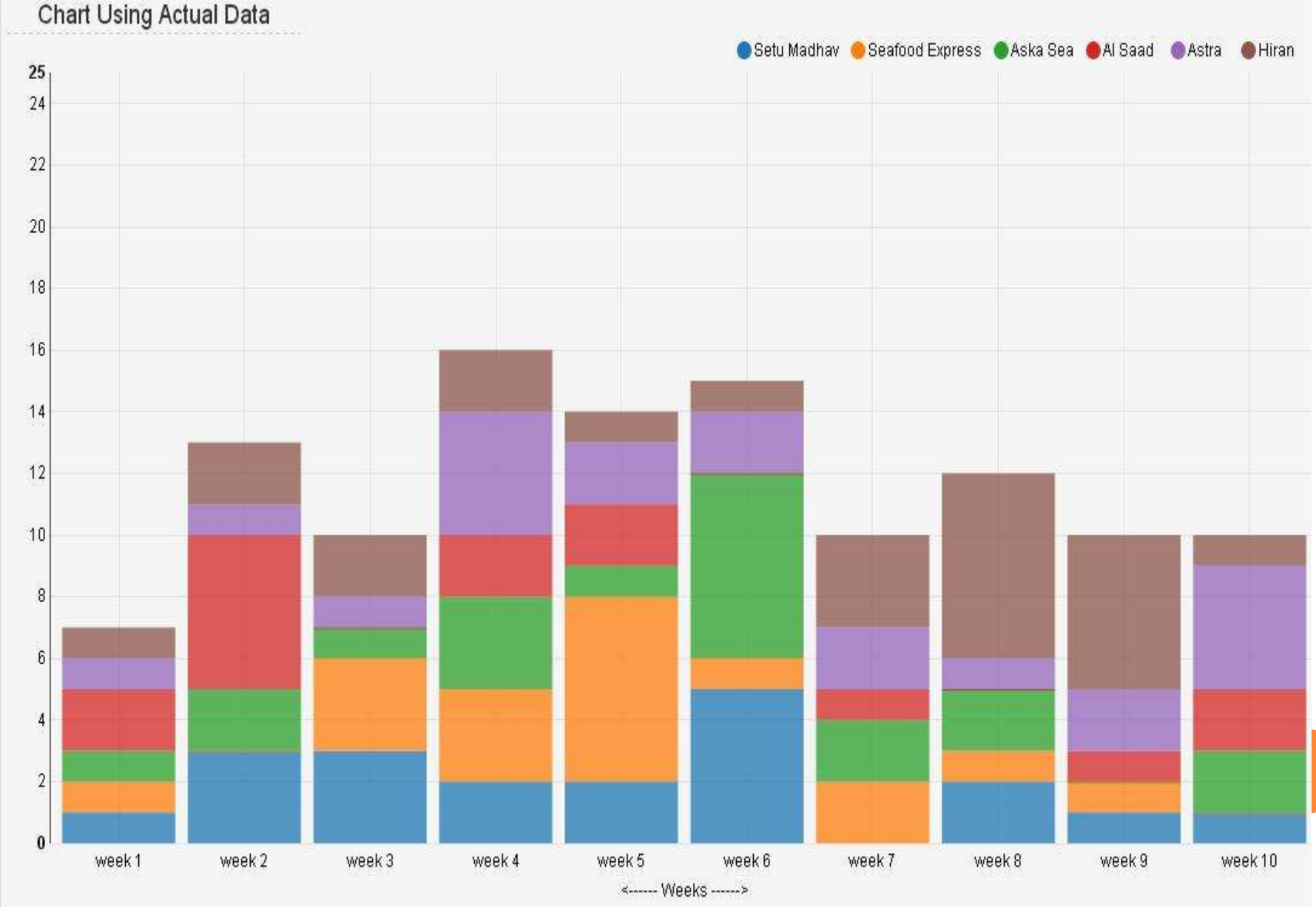
Eureka

After analyzing the actual claims and IOT data inputs and running Big data analytics tools on the IOT data we had generated reports which pin point the clients which are putting out false claims. These reports are generated directly on Platform and help solve the problem for Company.

Reports – Claims by clients of Company



Reports – IOT Data Analytics claim report



Reports – Wrong claims by Clients