TOUCH IOT WITH SAP LEONARDO

FABIANA COSTA

CONNECTED FUEL DISPENSERS
In a fuel station, there are many different process indicators to track and control. As examples we can mention fuel inventory, physical parameters, sales demand, dispensers downtime, etc. Manage a fuel station can be most of the times a challenging task because you need diverse area employees working in organized and synchronized tasks to get everything under control.

Can you imagine how painful would be to manage more than 500 fuel stations spread out in a big city? Some managers visit weekly each station to get their impressions and relevant information, others prefer to receive all the information daily by e-mail or telephone calls. In both cases the information flow is slow and the dependency on employee’s abilities is high. If they don’t have employees that they can trust the are lost.

The IoT with the Connect Goods solutions came exactly to meet these users expectations. The idea is to connect and integrate in a cloud based system all the fuel dispensers, fuel tanks and others needed devices. The user will interact with simple screens where they can easily and quickly navigate with a central monitoring and control fed with real-time information. The main benefits are increase revenue generation, avoid fuel shortage, reduce downtime, higher agility on treating anomalies, etc.
Persona

João da Silva  
The Operation Manager

“As I work remotely, I like to have accurate and updated information to be confident on my actions.”

About

• 28, single, 5 years of experience on fuel supply.
• Being responsible for the good functioning of the fuel stations distributed in the city, as I work remotely, I need to call or email each one every day to get information.
• I respond to the Operational Director, work with assistants, buyers and maintenance staff.

Responsibilities

• Performance of fuel dispensers.
• Inventory of fuels.
• Customer consumption and preferences.
• Build and monitor calibration and maintenance plans.
• Conform with regulations.

Main Goals

• Ensure dispensers availability and good operation of the POS.
• Get accurate and real time demand x inventory information.
• Eliminate silos of information.
• Ensure system security.
• Ensure environment protection.

Needs

• Guarantee fuel supply.
• Ensure equipment parameters are under control.
• Focus on the machines that need attention.

Pain Points

• Poor equipment parameters visibility.
• Outdated information – Slow flow.
• Low equipment availability.
• High waste.
• Too manual and repetitive tasks.
As an Operation Manager, I need a way to ensure that all the fuel stations are operating properly, so that I can increase revenue as well as decrease waste.
### User Experience Journey – Managing fuel dispensers

<table>
<thead>
<tr>
<th>ACTIONS</th>
<th>MINDSET</th>
<th>FEELING</th>
<th>TOUCH POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>-Receive stations info&lt;br&gt;-Check missing info&lt;br&gt;-Ask missing info</td>
<td>-Paulo never sends info!!&lt;br&gt;-Each info in different place!&lt;br&gt;-Need to organize it all!!</td>
<td>😞</td>
<td>-e-mail&lt;br&gt;-telephone&lt;br&gt;-reports</td>
</tr>
<tr>
<td>-Look for fuel dispensers that need attention</td>
<td>-Here I go again checking each one!!!</td>
<td>😞</td>
<td>-spreadsheet&lt;br&gt;-fuel stations charts</td>
</tr>
<tr>
<td>-Notify in case of anomalies&lt;br&gt;-Monitor calibration and preventive maintenance plan</td>
<td>-So many issues to solve!!!</td>
<td>😞</td>
<td>-telephone&lt;br&gt;-calibration/maintenance sheet</td>
</tr>
<tr>
<td>-Order fuel to refill the tanks</td>
<td>-Supplier contact info missing!!&lt;br&gt;-Price increase?!!</td>
<td>😞</td>
<td>-supplier info&lt;br&gt;-telephone&lt;br&gt;-purchase order</td>
</tr>
<tr>
<td>-Track anomalies solving/fuel delivering/supplier payment</td>
<td>-Issue not solved!!!&lt;br&gt;-Out of fuel!!!&lt;br&gt;-Missing payment!!!</td>
<td>😞</td>
<td>-telephone&lt;br&gt;-e-mail</td>
</tr>
<tr>
<td>-Complete status report</td>
<td>-Great! Finished for today!</td>
<td>😊</td>
<td>-status report</td>
</tr>
</tbody>
</table>
### Devices Types (2)

**My Views (2)**

<table>
<thead>
<tr>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
</tr>
<tr>
<td>Active</td>
</tr>
</tbody>
</table>

**95%**

### Fuel dispensers (550)

#### Fuel Dispenser 05
- Model: FDJ4MN
- Serial Number: 765646988
- Number of nozzles: 4
- Fuel level:
  - Diesel: 67%
  - Gasoline: 54%
  - Alcohol: 79%
- Availability: 96%

#### Fuel Dispenser 201
- Model: FDP64MN
- Serial Number: 869604709
- Number of nozzles: 3
- Fuel level:
  - Diesel: 87%
  - Gasoline: 98%
  - Alcohol: 90%
- Availability: 95%

#### Fuel Dispenser 305
- Model: FDP72MK
- Serial Number: 985675342
- Number of nozzles: 3
- Fuel level:
  - Diesel: 87%
  - Gasoline: 65%
  - Alcohol: 98%
- Availability: 97%

#### Fuel Dispenser 86
- Model: FE132ML
- Serial Number: 096857497
- Number of nozzles: 4
- Fuel level:
  - Diesel: 78%
  - Gasoline: 35%
  - Alcohol: 98%
- Availability: 97%

#### Fuel Dispenser 195
- Model: FDJ498AP
- Serial Number: 784624943
- Number of nozzles: 3
- Fuel level:
  - Diesel: 87%
  - Gasoline: 54%
  - Alcohol: 79%
- Availability: 96%

#### Fuel Dispenser 465
- Model: FE97MI
- Serial Number: 356492439
- Number of nozzles: 3
- Fuel level:
  - Diesel: 98%
  - Gasoline: 81%
  - Alcohol: 87%
- Availability: 94%
Prototype

Fuel dispenser 10

Dispenser availability
94%

Notifications (4)
Fuel dispenser with low leakage
Fuel dispenser with low pressure

AVERAGE TEMPERATURE (IN °C)

FUEL CONSUMPTION

FUEL LEAKAGE

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