Touch IoT with SAP Leonardo

Prototype Challenge : Story

A dispatcher is responsible for a group of vehicles/technicians that are on the road within a working area of about 4.000 square Km. Within this area the technicians provide continuous service to a huge amount of end customers. Challenge is to be sure the right technician with the right tools and materials are dispatched to the problem-location. The availability of needed materials and tools within the service-vehicles has to be upheld, all within the gross weight limits of the vehicle. Information about vehicle status and availability of tools and materials can support the dispatcher in making the best call in sending the best combination to the required intervention. Drop out of vehicle/technician due to vehicle malfunction, missing tools and lack of materials has to be avoided when possible.

The 'Dispatcher' prototype has to provide the necessary information to the 'Dispatcher' concerning vehicle status, tools and materials when needing to assign a technician to a 'job at hand'. This information is based on vehicle information, extended with the material availability based on posting information, on sensors in the vehicle and on material and tool presence traced by RFID and gps tracking.

The dispatcher can based on thresholds also contact the technician in order to redirect him to the nearest storage location to reload the service vehicle with the necessary materials and tools or if the sensors detect a possible problem with the vehicle, a redirection to one of the vehicle service locations can be executed.

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Prototype Challenge : Persona

JOHN

The Dispatcher

"I want to provide the best service to our customer, first time right."

About

- 15 year service technician, 5 years dispatching, 5 year member or MRO commission.
- As person making the dispatching decisions, I need to get the highest customer service in the most efficient way
- Working centrally, actual and correct information is my highest need to bake the best 'call's'
- I work with the Chief customer service, Technicians and Logistics (MRO & Tools) department

Responsibilities

- I am responsible for dispatching technicians
- I am responsible for multiple technicians in a +4.000 square kilometer area
- I spend almost the entire day in the office but also have to be available when in the field myself.
- Dispatching is a continuous job for me (and my counterpart)

Main Goals

- Being the person who makes the dispatching decisions based on the information at hand, I need to make sure that the customer gets the right service first time with the shortest possible delay.
- More efficient operation of our service department.

Needs

- I need to know the location of all our technicians and vehicles.
- I need to know the special skills of each technician
- I need to know status of each vehicle (technical) and technician (operational).
- I need to know the available tools in each vehicles and warehouse.
- I need to know the available materials in each vehicle and warehouse.

Pain Points

- No clear overview on actual vehicle/technician location
- Vehicle status only available after call from technician (standard : 'out of order')
- Technicians dispatched often missing tools/materials for the job.
- Hence above pain points, an extra pain point is I need to call several technicians before knowing whom I can dispatch.

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Prototype Challenge : Point Of View

As a Dispatcher in a service organization,

I need a way to get real time information on all ‘items’ (like vehicle, technician, tools and materials) needed for performing service to our customer.

This do that I can dispatch the most suited technician for the job, having the needed tools at hand, to the customer.

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Prototype Challenge : UX Journey

ACTIONS	> get notification of job at hand	> look at the available busses/technicians that day	> Call the technicians not yet dispatched and in the region of the customer.	> Verify with the technician if he has the tools and materials for the job available	> If not, sent the technician to the nearest storage location	> Inform the customer about the delay	> Technician confirms arrival at storage location	> Technician confirms arrival at job location	> Job completed	> Look in to new job for the technician.
MINDSET	> "Ok, someone has a problem" > "Let's dispatch one of my team-members" > "Is every bus available for dispatch." > "Has everyone come to work today?" > "Lets' start calling the colleague whom I think is in the region" > "Damn, the first one I called is ill" > "The second one is at the far end of the region". > "finally, I've found someone". > "let's mark the bus/technician as occupied" > "Damn, the bus contains not all tools and materials for the job." > "A detour passing the Storage Location is necessary 😒" > "Nice, I have to call the customer to inform him of the delay, don't like that". > "I hope that in the storage location all is available" > "Lucky all was available in the storage location, hope logistics will refill soon". > "finally work can begin". > "Success, job completed, that bus/technician is available again for a new task". > "Next issue to assign to my colleague."									
FEELING	😟		😐							
TOUCH POINTS	> Plannable Job list > List of available busses/colleagues > Telephone list > List with regions where the busses are located > Job material list > Address list storage location > Material list storage location > Tool list storage location > Telephone list customers > Material list storage location > Tool list storage location > List of available busses/colleagues > Plannable Job list									

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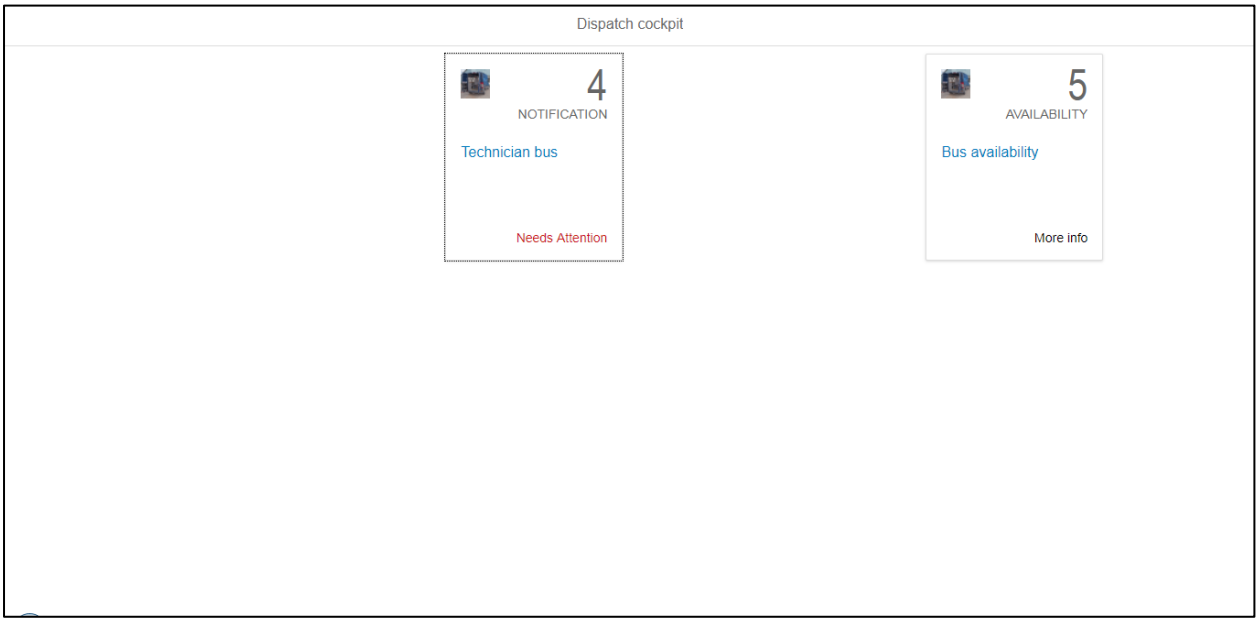
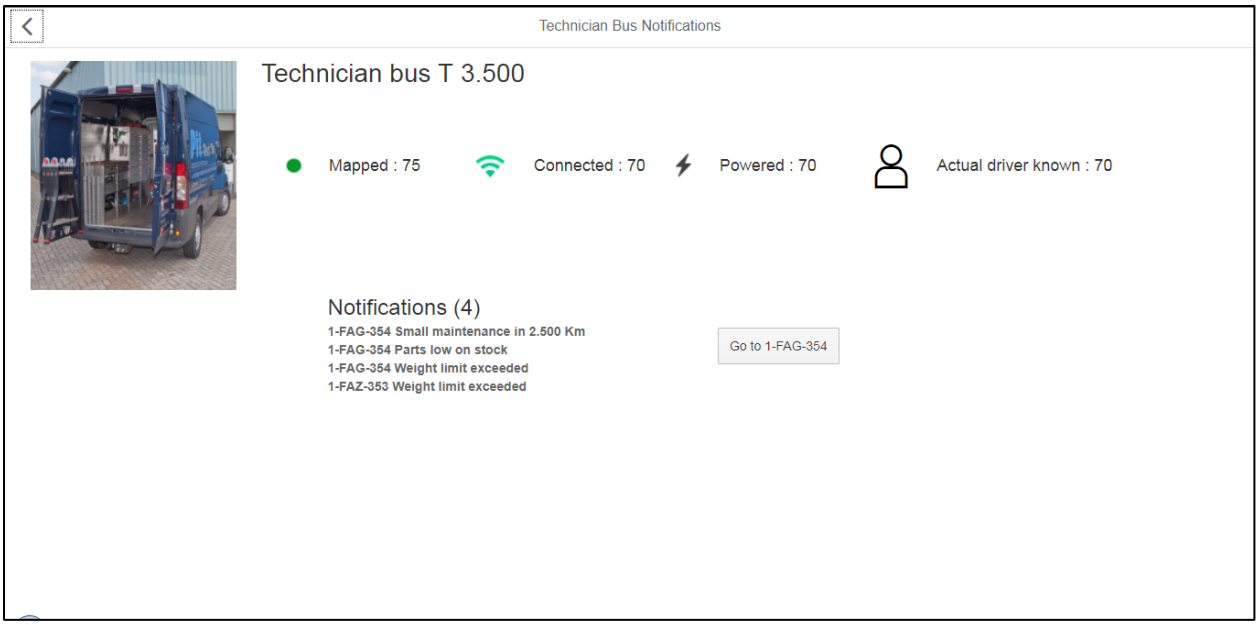
Prototype Challenge : Build Mock-Up

https://standard.build.me/prototype-editors/api/public/v1/snapshots/00abf9737e0b384e0e18e1f6/artifacts/latest/index.html#/launch_page





Technician Bus

Technician bus T 3.500

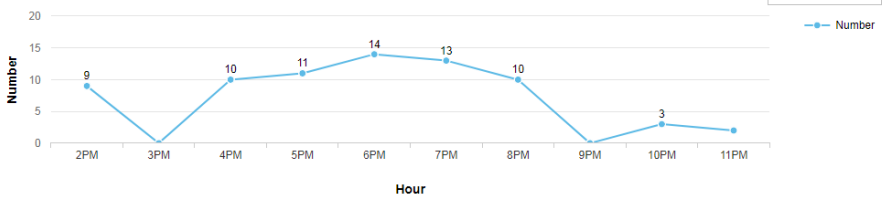
1-FAG-354 ● Mapped | Geo-Match | Connected | On | Actual driver: Wezel, John | Notify

LIVE WEIGHT
3.580 Kg
Jul 05, 2017 08:35:36

Notifications (3)
Small maintenance in 2.500 Km — Jun 06, 2017
Weight limit exceeded — Jun 06, 2017
Parts low on stock
See All

MATERIALS LOW ON STOCK

Hourly



Technician Bus Availability

Technician bus T 3.500

Mapped : 75 | Connected : 70 | Powered : 70 | Actual driver known : 70

Availabillity

Status	Bus	Driver	Location
●	1-FAG-354	Marc Vermeulen	Bree
●	1-FAG-356	Dieter Leenders	Dilsen
●	1-FWG-543	Raf Molenaers	Hasselt
●	1-GAW-253	Peter Muffels	Genk
●	1-KAR-745	Jan Creemers	St-Truiden