TOUCH IOT WITH SAP LEONARDO

PROTOTYPE CHALLENGE

SMART FIRE EXTINGUISHERS
Summary

One of Human Resources top concerns is the safety of all people working on-premises, may it be employees, contingent workforce or simply visitors.

Storyline

In this context, HR appoints a number of full-time employees having a background either in Army, Scouts or similar discipline as safety guides to respond to emergency situations/disaster events (earthquake, flood, fire, terror threat etc.) and guide safely all individuals in the building. Thus, a safety guide has as additional duties to periodically perform inspections of exit paths, lead people safely out to place of gathering in case of evacuation exercises or incidents or react before professional experts (fire department, police, etc.) arrive.
Persona

Greg

Full-time network engineer, appointed safety guide by HR

“I am a team-oriented person that takes quick decisions to react to urgent situations.”

About

- 33 years-old, single, 8 years of network engineering
- 4 years of network design, 4 years of network operations
- Served as Green Beret in Army, Reserve Marine Forces
- As a safety guide role, I lead some 150 people

Responsibilities

- Dividing time 30% at field, 70% at office
- I am responsible for the timely and orderly evacuation of the building of all people in the area assigned to me
- Developing alternate exit paths after evacuation exercises

Main Goals

- Inspect signs of exit, fire extinguishers etc.
- Monitor and report any obstacles in exit path
- Guide and assist people with disabilities
- Evaluate results in evacuation exercises against planned

Needs

- I need to find the most effective exit path for my people
- I need to ensure that all people in the area have evacuated the building within acceptable time in case of emergency
- I need to know the status of fire extinguishers
- I need to know if any people have been trapped in certain locations (restrooms, kitchen, warehouses etc.) in case of emergency

Pain Points

- I have to manually inspect fire extinguishers
- I have to scan every room in the area for trapped people
- I do not know the location of people with disabilities
- I have to complete manually forms on evacuation incidents
As a safety guide appointed by my company to lead employees, contingent workforce and visitors in building evacuation exercises and incidents

I need a way to ensure that all fire extinguishers are located at their proper place, are filled by more than 80% and their content has not been expired so that I can protect all workforce by putting out safely a fire in the building as soon as possible.
### User Experience Journey of Safety Guide

#### periodic inspection of exit path

<table>
<thead>
<tr>
<th>ACTIONS</th>
<th>MINDSET</th>
<th>FEELING</th>
<th>TOUCH POINTS</th>
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</thead>
</table>
| ➢ Arrive on-premises  
➢ Time for monthly inspection | ‘Ah it’s that time again’  
‘I will have a ton of backlog work when I get back to work’ | 😊 | ➢ Inspection sheet  
➢ Exit doors  
➢ Ramps  
➢ Fire extinguishers  
➢ Safety kits  
➢ Timer |
| ➢ Start inspection  
➢ Start clock  
➢ Walk the pre-defined exit path | ‘The fire extinguisher in the first floor is reaching expiration date’ | 😞 | ➢ Stairs  
➢ Town square  
➢ Office desk  
➢ Laptop |
| ➢ Get down the staircase | ‘This handrail is loose, I better report it to Facility Management’ | 😞 | ➢ Mail  
➢ HR |
| ➢ Go to place of gathering  
➢ Stop clock  
➢ Return to office desk | ‘I finished on time and also have findings to report’ | 😊 | ➢ Fill insp. sheet  
➢ Report findings to HR |
| ➢ Return to office desk | ‘I have to manually fill and send reports’ | 😊 | — |
Prototype

Solution

As Internet of Things technologies allow, we can embed sensors into existing fire extinguishers or procure only smart ones from now on. Thus, all contextual information regarding building blueprints, location and content of fire extinguishers, inspections, refills and financial data may be blended in order to provide a holistic view to all users responsible for safety of human capital. A mock-up object page of a typical fire extinguisher follows as it could be viewed hypothetically inside SAP Connected Goods solution.