STREET LIGHT COCKPIT
Summary

A manager of a local utility company needs a solution to monitor, control and plan scheduled service tasks for street lights in his district.

Story Line

The manager has to ensure that all street lights in his district are fully functional. His tool is the SLC (Street Light Cockpit). The SLC allows him to monitor important parameters of his street lights: energy consumption, light temperature, vibrations (e.g. to detect vandalism or traffic accidents) and other parameters. In case of an incident, e.g. one of the measured parameters is not the allowed range a warning is displayed in the map view of the SLC.

After analyzing the incident, the manager can create a service ticket for a service technician. The service ticket is automatically pushed on the tablet of the service technician.
Persona

Explain the needs, goals, and pain points addressed

Sally
Regional Manger

Want to see quickly the status of street lights in her district

About
• 35 married, 10 years of utility services experience
• Ensures the lights in her district are fully functional
• Plan maintenance tasks for her service technician

Responsibilities
• I am responsible for the street lights in my district
• I monitor the parameters of the street lights
• I have to plan maintenance tasks for the service technicians

Main Goals
• Ensure that every night all street lights are working properly
• Better management of service technicians

Needs
• I have to know that something is going wrong with the street light before it is completely fail
• I need the street light geo information and the street light number to create a service tasks for the correct street light
• I need the model number of the street light so the service technician picks the right spare parts for the street light

Pain Points
• It takes a long time to know the a street light is not working (e.g. phone calls from residents)
• It takes time for the service technician to identify the right street light at a given street
Point of View (PoV)
User + need + insight/why

Point of View

As a Regional Manager

I need a way to know in advance if a street light will fail in the nearly future,

so that I can plan service tasks for the service technician in an efficient way and ensure that all lights are fully functional every night.
<table>
<thead>
<tr>
<th>ACTIONS</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Open the dashboard of the Street Light Cockpit -</td>
<td>Check the parameters of the street lights for abnormalities</td>
<td>Identify a street light with a problem</td>
<td>Create an incident ticket and plan a service task</td>
<td>Open an Error Message on the dashboard</td>
<td>Recive task completion message from technician</td>
</tr>
<tr>
<td>“Maybe some warning or fault messages of street lights”</td>
<td>“Let’s see the live status of the street lamps”</td>
<td>“Which lamp model is it?”</td>
<td>“Which service technician is available?”</td>
<td>“Why is street lamp failed?”</td>
<td>“The repair of the street light was successful”</td>
</tr>
<tr>
<td>”Are all Parameters in the green range?”</td>
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<td>“Can we fix it today?”</td>
<td>“I have to plan an efficient route”</td>
<td>“Is there an accident (e.g. car has demolished the street lamp)?”</td>
<td>“The light is working again”</td>
</tr>
<tr>
<td>“Any indications of failure in the future?”</td>
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<td></td>
<td>“Can we fix it today?”</td>
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<tr>
<th>MINDSET</th>
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<tr>
<td>FEELING</td>
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<td>TOUCH POINTS</td>
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<tr>
<td>Dashboard “Map view” of the Street Light cockpit</td>
<td>Detailed overview about the sensor data for each street light Indication if something is not “normal”</td>
<td>Spare Part Catalog</td>
<td>Timetable to plan routes for service technicians</td>
<td>Message Monitor of the Street Light Cockpit</td>
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</tr>
</tbody>
</table>
Prototype
Prototype screens for an IoT application to solve your PoV

Published Project:

https://standard.build.me/api/projects/d7a307bf1341dd620cd38c2a/prototype/snapshot/latest/index.html#/14774910022084489_S0

Study:

https://standard.build.me/home/projects/d7a307bf1341dd620cd38c2a/research/participant/905b502fa3c4fdb10cd3ca63

Screenshoots:
Status: Operativ
Lamp Type: LED
Energy Consumption: 250 kWh
Light Temperature: 2800 °K

<table>
<thead>
<tr>
<th>Sensor</th>
<th>Prediction</th>
<th>Value</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light Temp</td>
<td>2780 °C</td>
<td>25/3/2016 10:15:10</td>
<td></td>
</tr>
<tr>
<td>Energy Consumption</td>
<td>270 Watt</td>
<td>25/3/2016 10:15:10</td>
<td>![Impact]</td>
</tr>
<tr>
<td>Light Intensity</td>
<td>600 Lux</td>
<td>25/3/2016 10:15:10</td>
<td></td>
</tr>
</tbody>
</table>

Create Service Task

Service Task History

<table>
<thead>
<tr>
<th>Technician</th>
<th>Description</th>
<th>Date</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peter Smith</td>
<td>Lamp is broken</td>
<td>1/11/2016</td>
<td>Open</td>
</tr>
</tbody>
</table>

Create Service Task