RFID JOURNAL LIVE!

MAY 9-11, 2023 | ORLANDO, FLORIDA

Hospital Israelita Albert Einstein uses RFID to Track Assets and Improve Efficiency

- Rafael Vitolo
- Project Leader

Use Cases

- Linens Workflow Management;
- Medical Equipment´s Locations;
- Room Items;
- High-Cost Items Control;
- Fixed Assets Control at the Teaching and Research Center;

A RFID Architecture Multifunctional & Collaborative

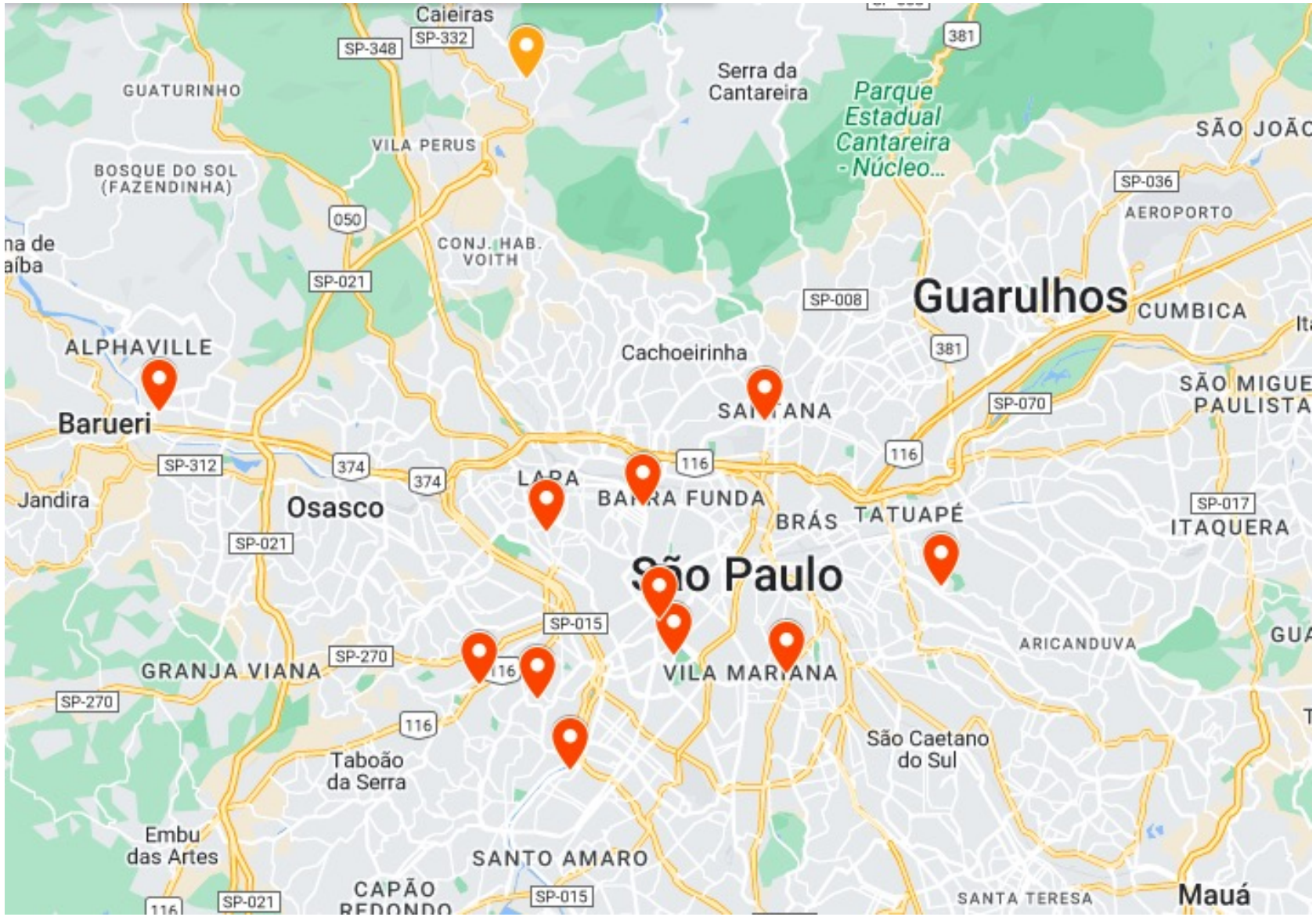
- 5 Uses Cases;
- Same Locations to Monitoring;
- Increase Reader Usage For Different Use Cases;
- Reduce Cost of Use Cases Implementation;

Our Partnership

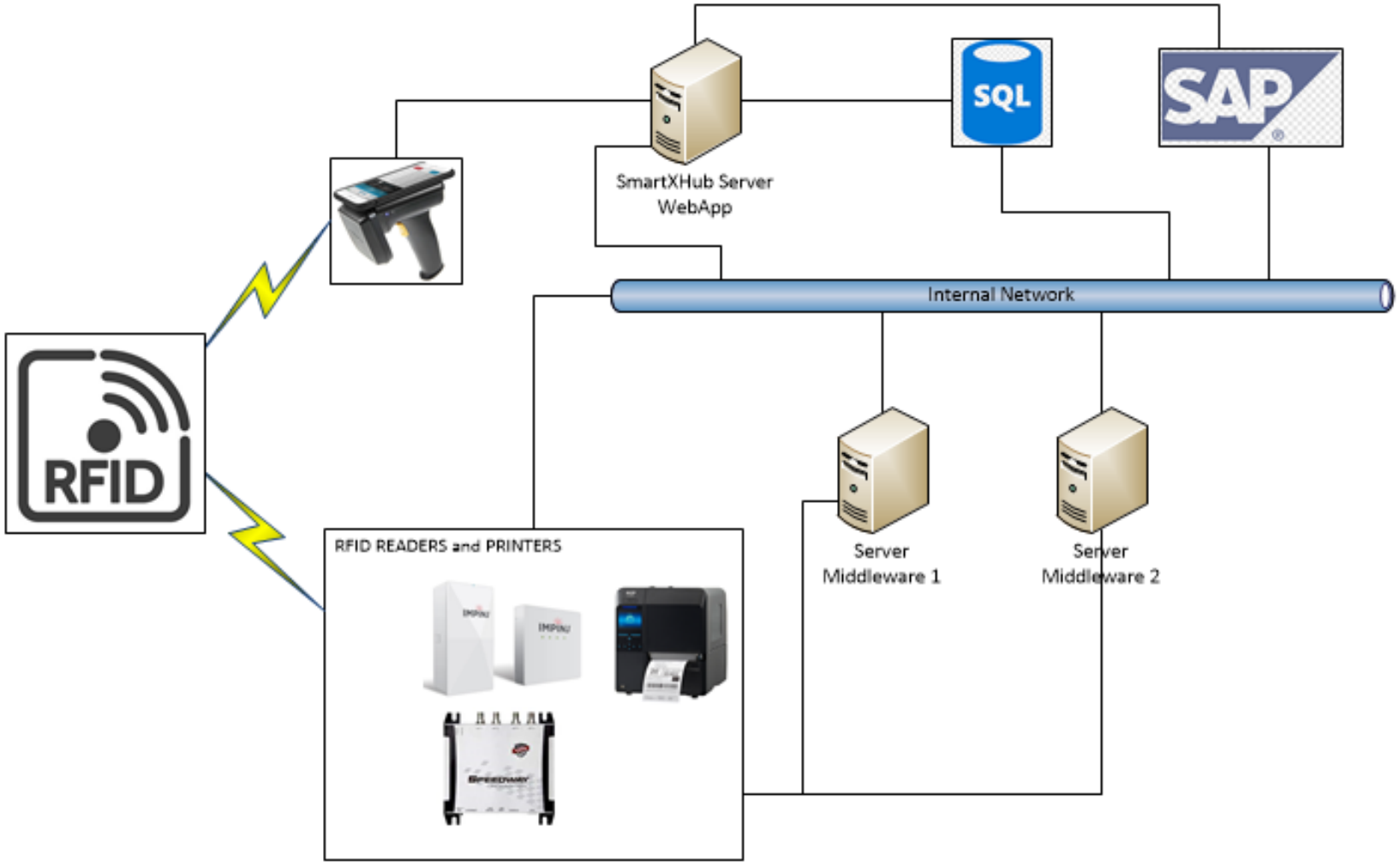
- Request for Proposal
- 33 companies in process
- 4 technical approved
- IDvida IOT that represents SmartXHub

Units using RFID

- Unidade Morumbi
- Unidade Alphaville
- Unidade Alto de Pinheiros
- Unidade Chácara Klabin
- Unidade Ibirapuera
- Unidade Jardins
- Unidade Perdizes
- Unidade Anália Franco
- Unidade Francisco Morato
- Unidade Parque da Cidade
- Unidade Santana
- Lavanderia Parceira



Our RFID Infrastructure



How Many RFID Equipments Do We Need?

21x 04x

02x

02x

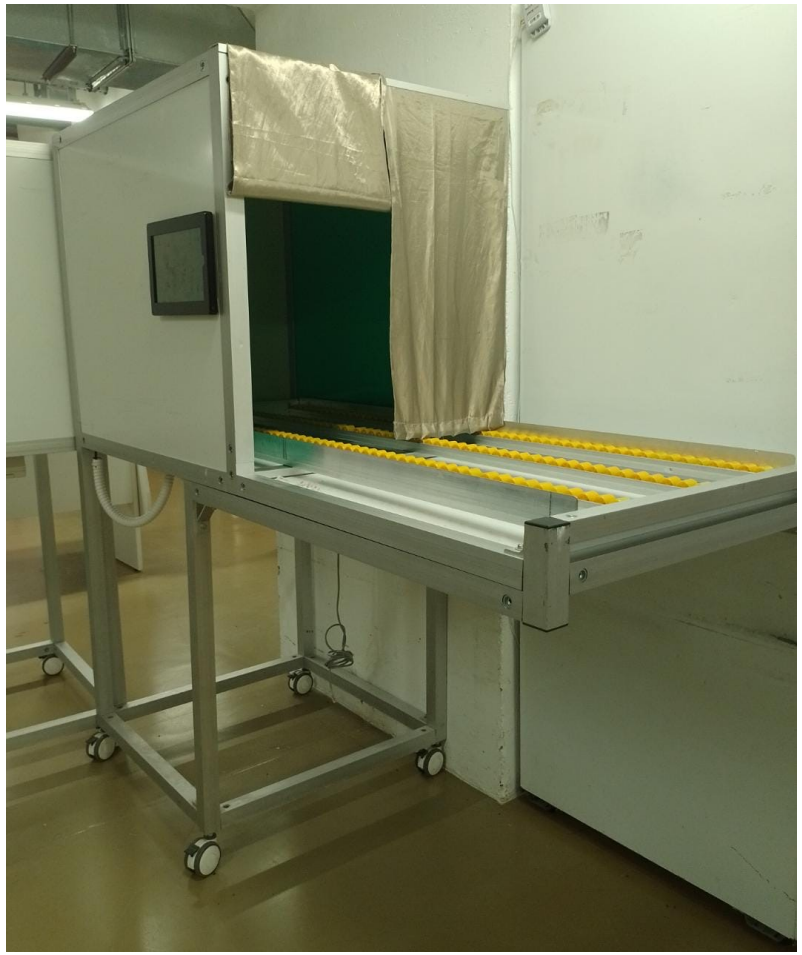
A lot

10x

52x

02x

RFID Reading Tunnel – Self Dev



Key Numbers on RFID System

- 02 RFID Middleware;
- 03 Millions readings a day;
- 30.000 Items Updated every day;
- 300.000 Items to Control;
- 273.000m² linked with 1212 zone areas (just at Headquarter);
- 900 alerts sent by system monthy;

Any Issues?

- High Volume of tag Reading;
- Large Processing Line;
- Tags for Medical Items (Monza R6 to Impinj M730);
- Adjustment in the Middleware Algorithm;

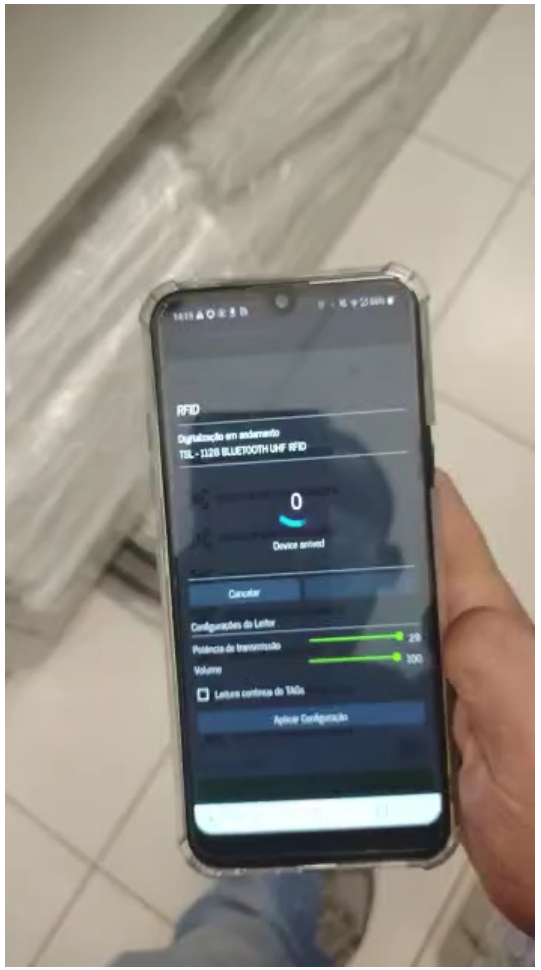
Our Environmental Conditions

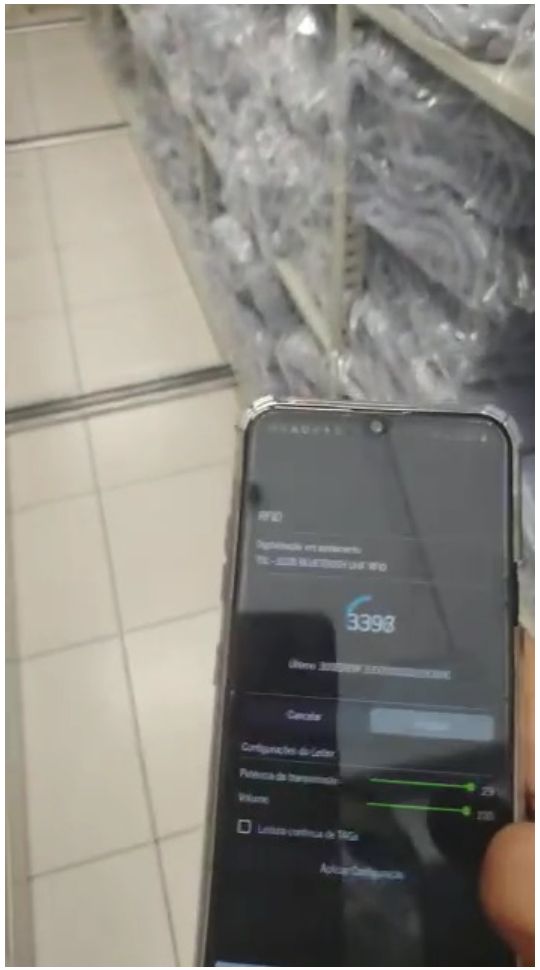
- Very Sensibles Areas, such as:
  - Surgical Center;
  - Patients Rooms;
  - Pharmacy;
  - Dirty Linens SHUT;
  - Isolation Areas;

How Long to Finish All Use Cases

- Design and Structuring started in Second Semester of 2018
- Dedicated Months to the Functional Definition of Use Cases
- Implementation Started in First Semester of 2019
- Last Delivery in the Second Semester of 2022

Linens Workflow Management:

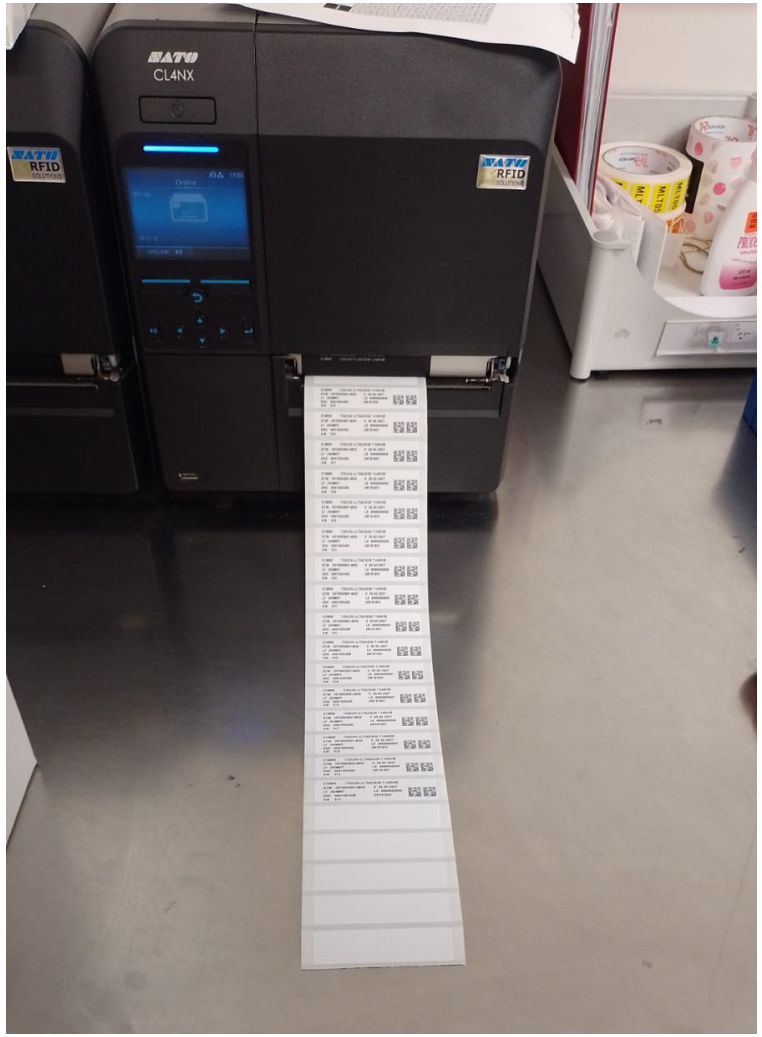




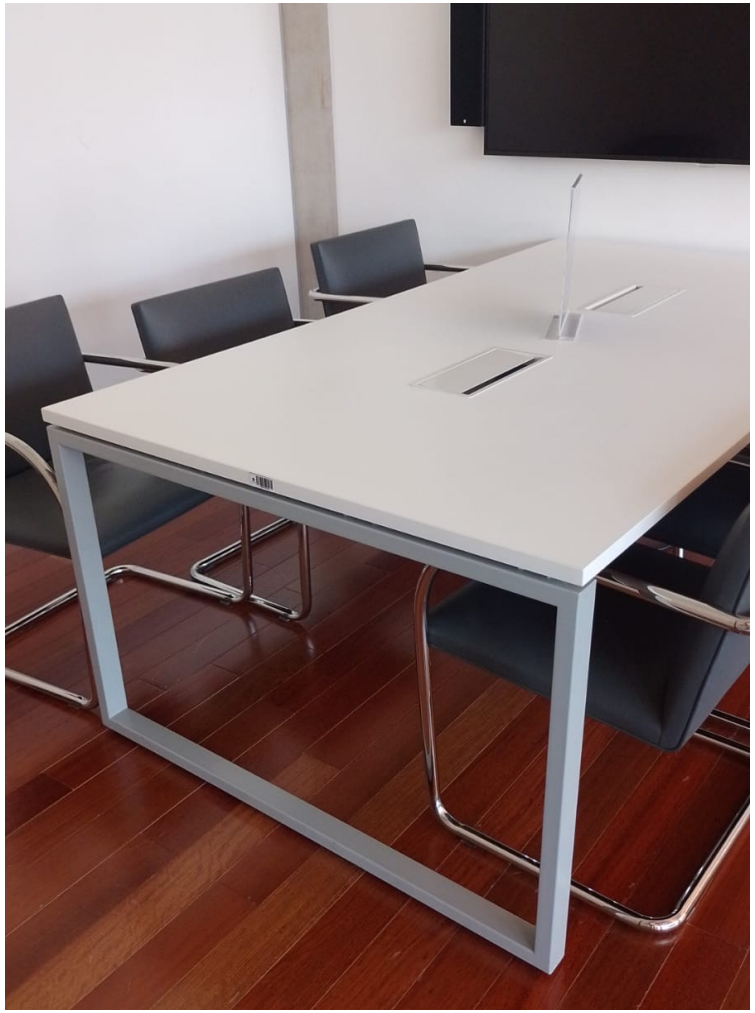
Medical Equipment's Locations:

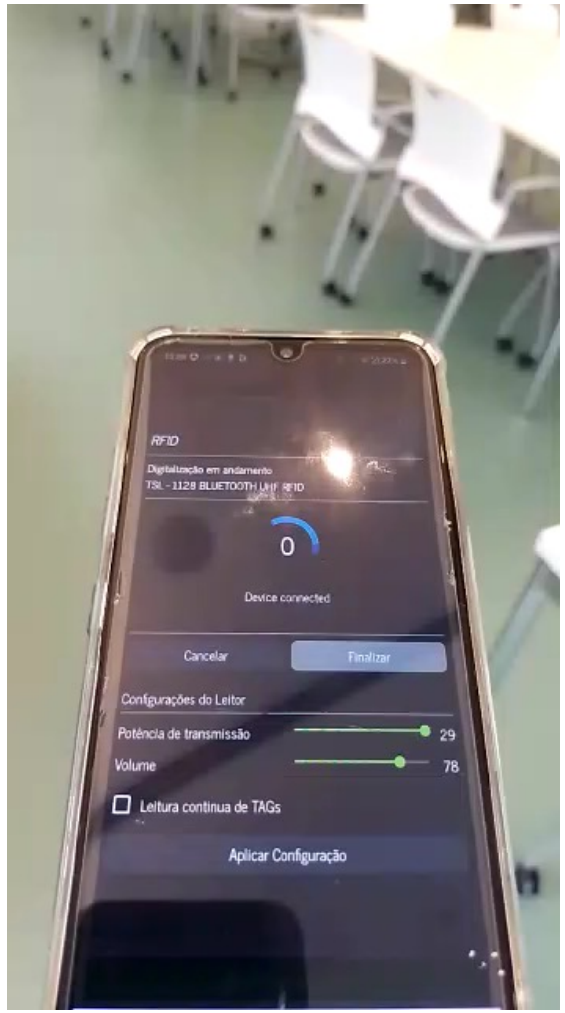
Room Items:

Hight Cost Items Control:



Fixed Assets Control:





Directs Results:

- Reduced Inventory time from 72 to 10 hours (86%);
- Linens Loss Rate was reduced from 4% to 0.8% (80%);
- Reduced number of losses for Misuse by 15%;
- Reduced 50% of employees dedicated in inventory process;
- The time used to find items was reduced;
- Reduced the investments for the acquisition of room items by 10%;
- Estimated reduction of 50% with Loss of High-Cost Items;

Indirects Results:

- Enhanced assertiveness in the inventory process;
- Reduction in the need to replace items, due to a reduction in the evasion rate;
- Manpower increase allocated to final business activities;
- Decreased the unavailability and the risks of using expired maintenance equipments;
- Better management of items that leave for external maintenance or for use in other units\locations;

Is that all?

Of Course Not:

- Organic Growth;
- Started the Development of New Features to Linens Use Case;
- Studying how to expand the “Fixed Assets Control”;

Thank You

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THANK YOU

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