

Development of a Smart Manufacturer Platform

NDA Case Study

codilime

About the client

The client is a multinational telecommunications conglomerate, founded in the US and operating globally in areas including networks, mobile networks, broadband, digital media, and many more.



Challenge



The project's goal was to create a smart manufacturer platform including a UI portal responsible for management, monitoring & real-time visualization of conveyor belt robots, AMRs, smart racks, etc.

This platform is an innovative warehouse solution (intelligent warehouse) that automates the process of collecting and grouping items ordered by customers.



Challenge



The solution includes:

- **Smart racks** (intelligent shelves) - temporary storage for items delivered from the warehouse. Smart racks are able to signal the sequence and location of items that should next be delivered to the conveyor belt.
- **Conveyor belt robots** with bins - conveyor belt robots can scan, transport and distribute items into specific subgroups within the bins. Bin subgroups are defined by jobs and orders.
- **Autonomous mobile robots** - AMRs (autonomous mobile robots) are responsible for transporting racks, delivering empty bins to the conveyor belt, and collecting filled bins with items where the set of collected items is defined by jobs and orders.

The smart manufacturer platform (SMP) UI portal is responsible for real-time visualization of the conveyor belt robots and the jobs / orders completion process. It tracks the states of any devices that are part of the SMP. It enables users to manage and monitor the entire process.



Services we provided

Frontend development

1

UX services

2



Results & benefits

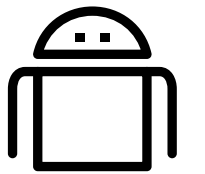
Innovative warehouse solution with visually appealing UI portal.



Real-time monitoring and visualization of devices and robots part of the smart manufacturing platform.



Automation of collection and grouping of items ordered by customers.



The scope of the project

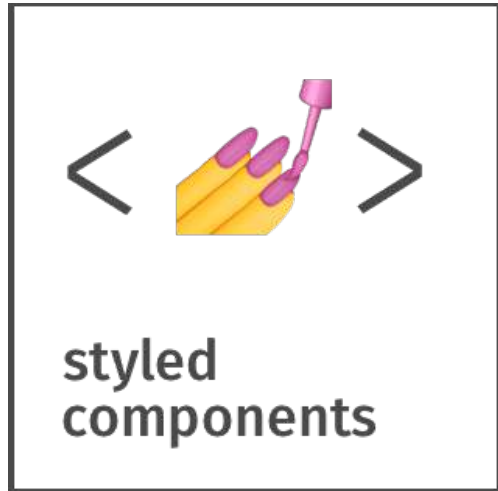


The primary goal of the CodiLime team was to create the SMP UI portal that allows users to:

- list available items / devices located in the smart racks,
- list jobs and orders with their completion status,
- create new order configurations,
- view smart racks with their content (items and their location on the rack),
- view AMRs' status,
- monitor the work of conveyor belt robots in real time,
- list and manage active and resolved alarms,
- plan and monitor the sequence of jobs and orders and their completion process.



Technologies and tools



About CodiLime

codilime

Since 2011, CodiLime has been the engineering partner of choice for semiconductor companies, networking services, telecom services, and software solution providers.

We have come a long way – from a startup to a company that hires more than 350 top-notch software developers, network engineers, DevOps experts, and solution architects. **We focus on five N.E.E.D.S. - Networks, Equipment, Environment, Data and Security.**

We aim to link engineering talent with business domain expertise. Everything to provide our clients with delivery excellence and custom-tailored solutions.

Check out what our partners have said about us and how they evaluated our cooperation.

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