ARTIN

PENGUINBOX

PENGUIN BOX

CASE STUDY

E2E LOGISTICS AND ECO-FRIENDLY TEXTILE RECYCLING

Since 2019, ARTIN has been developing and maintaining a complete software ecosystem for Penguin Box – from web administration of collection routes and boxes, through mobile apps for drivers and customers, to Bluetooth access to smart boxes and integrations with logistics partners, all custom-built and scalable.

CHALLENGE

Penguin Box runs several interconnected businesses at once – eco-friendly textile collection, smart parcel boxes and appliance rental – and the whole operation needed custom software that didn't exist yet. The system had to manage container fill levels in real time, plan collection routes, enable Bluetooth access to the boxes and generate reports for municipalities and logistics partners. It also had to be flexible enough to handle rapid growth – including winning the tender for textile collection in Prague after a change in legislation.

SOLUTION

- Web administration for configuring boxes and planning collection routes in real time
- Mobile app for drivers (Android + iOS): assigned routes, opening boxes, logging collections
- Mobile app for customers (Android + iOS): Bluetooth access to smart boxes, parcel management
- Integration with the Chinese eKey server for managing Bluetooth locks on smart boxes
- Integration with Balíkovna: a complete system rewrite enabling parcel delivery to Penguin Box lockers
- Automated reporting for municipalities on collections and container fill levels

TEAM SIZE

~5–6 ARTIN people at a time (frontend, backend and mobile developers, PM) – the team adapts to the current project phase

TECHNOLOGIES

.NET · VueJS · Azure Platform · Linux server

PROJECT DURATION

Since October 2019 – ongoing (5+ years)

The system was completely rewritten for the Balíkovna integration – without disrupting existing operations.

NEED TO MODERNIZE A LEGACY SYSTEM WITHOUT THE RISK?