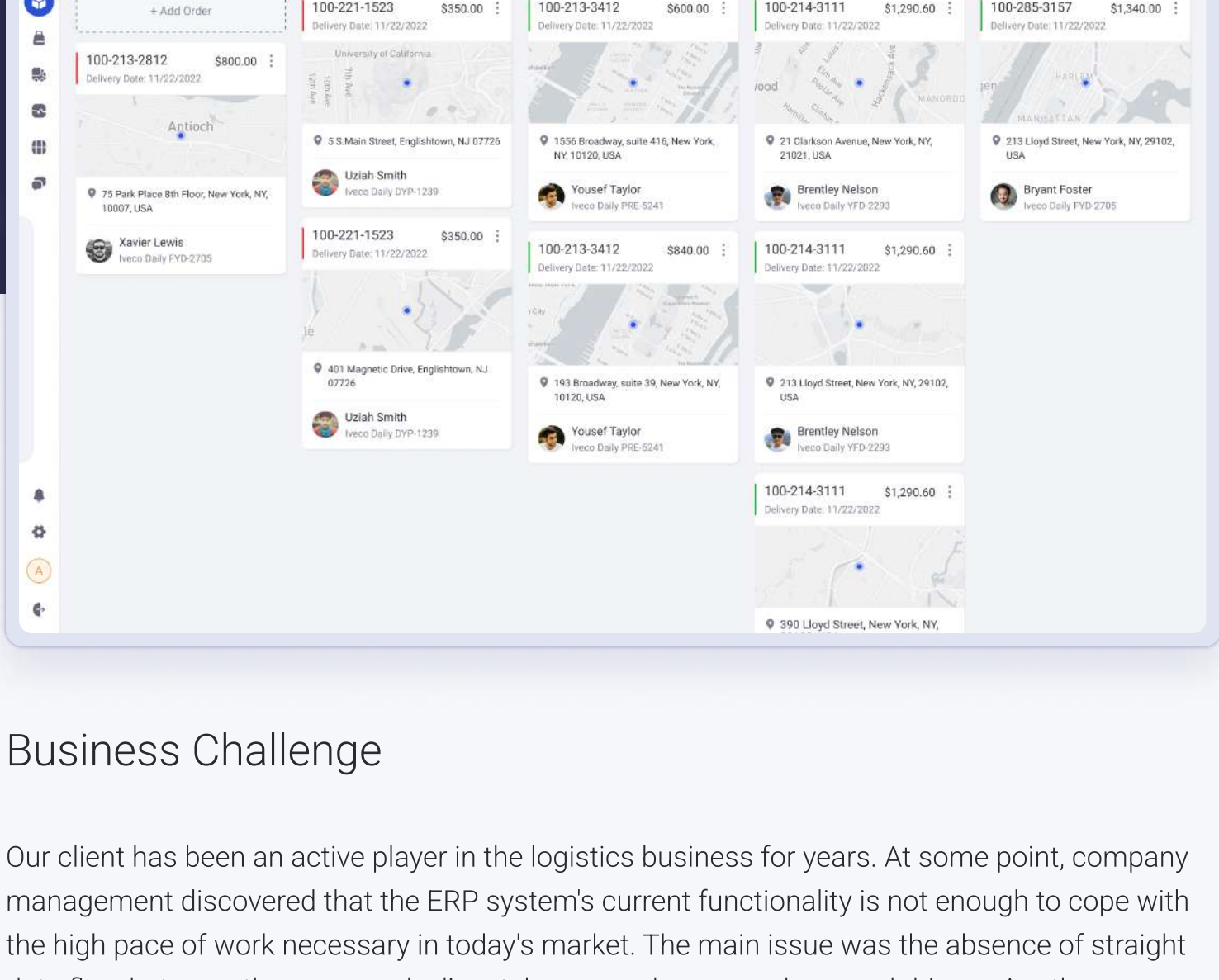


## Delivery Management System

Online package delivery management system that allows improving logistics companies workflow by streamlining work processes for dispatchers, warehouse workers, and drivers.



## Business Challenge

Our client has been an active player in the logistics business for years. At some point, company management discovered that the ERP system's current functionality is not enough to cope with the high pace of work necessary in today's market. The main issue was the absence of straight data flow between the company's dispatchers, warehouse workers, and drivers. Another requirement for the new [custom logistics solution](#) was to ensure the safety of cargo and automate the route building process to make the delivery process more efficient and cost-saving. Also, our client has asked to add new delivery management functionality on top of the existing ERP solution instead of developing the whole system from scratch.

## Solution

Our developers have created an integrated delivery management module that was synced with the client's [ERP system](#). As a result, the module and ERP can exchange all data related to products, inventory, customers, users, orders, warehouses, and trucks. The availability of both mobile and desktop versions of the application allowed us to provide warehouse workers and drivers with the mobility necessary to increase work efficiency.

**Administrator's access rights** can vary according to the level of synchronization with the client's ERP system. The minimal set of available functions allows administrators to add and manage users related to one of the following categories, each with a specific set of available features.

### Dispatchers

Dispatchers manage customers' orders and create tasks for other employees. They have access to the orders screen available via the desktop app. It allows reviewing all current orders that can be sorted by delivery date, price, current status, and other criteria. A single click gives access to all specific details and inventory requirements. The truck screen of the delivery management system allows dispatchers to review all available trucks and drivers, their current statuses, and assigned orders.

### Warehouse Workers

Warehouse workers prepare the items to be picked up by drivers. **A mobile app for warehouse workers** sends automated notifications after a particular order is confirmed. An employee that has no current tasks can accept any of the available confirmed orders. Every item in the warehouse has a unique barcode that is stored in the system's database.

To speed up development, we used mobile devices with **integrated scanners** designed for performing tasks specific for warehouse workers. Such an approach allowed us to avoid the need to spend effort developing and testing software intended to work with cameras of different smartphone models. Using the barcode scanner, the employee can add specific items to the order, and its current status will change accordingly. After all required items are collected, scanned, and packed, the warehouse worker can change the order status to "Ready to delivery."

### Drivers

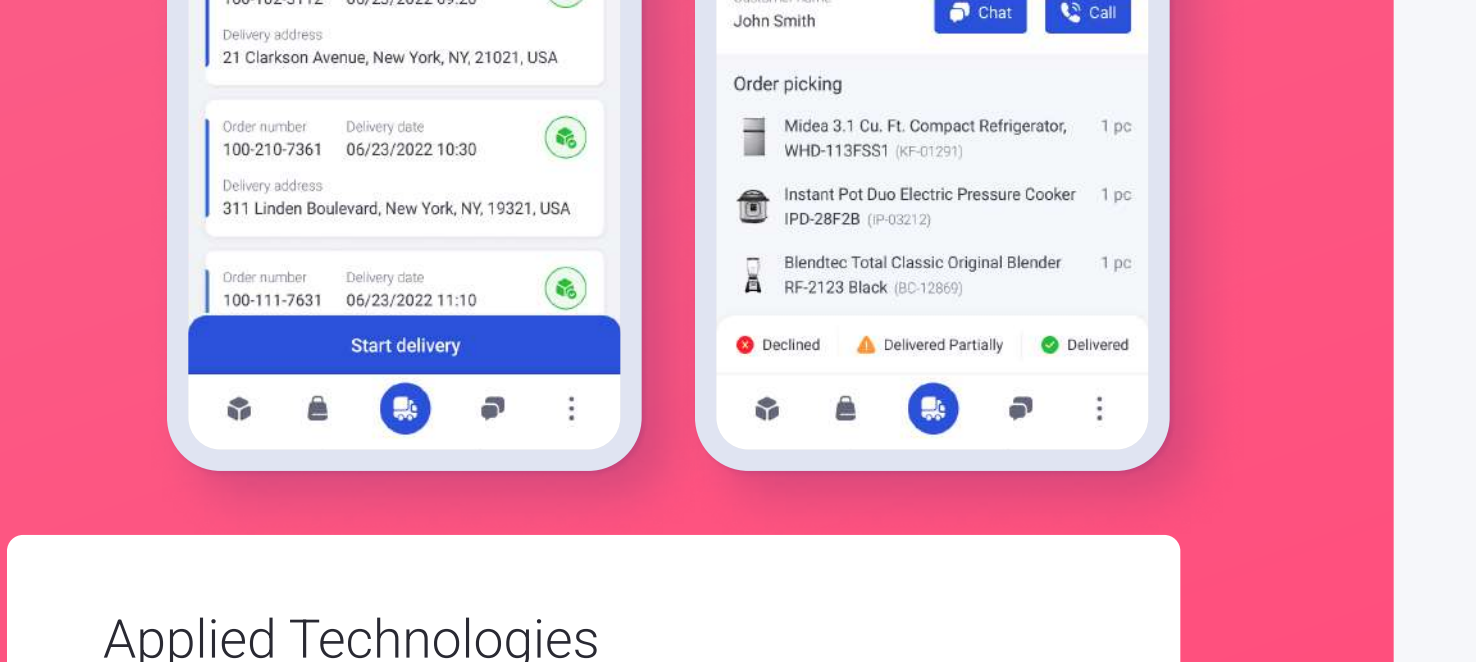
Drivers, in their turn, make deliveries to customers. **A mobile app for drivers** has the following primary purposes: monitoring delivery status on its way to the customer, optimizing the delivery route, receiving notifications on new tasks, and tracking their current status. Like warehouse workers, drivers can use barcode scanners while picking up packages at the warehouse and during the shipment.

After the truck is loaded, the user can change the delivery status via the mobile app. All the dispatchers will instantly receive this information, and the current location of the truck will be displayed on the screen. **The AI-based route management system** can monitor such factors as the time of day, usual traffic congestion, traffic lights, and speed limits to choose the optimal route. After delivery is completed, all data related to the order can be sent to the server, and the ERP system can use it to generate the invoice.

## Implemented Components

During the implementation of all features required for the delivery management system, we used our own products, such as [Webix](#) and [DHTMLX](#). They allowed significantly increasing development speed and made the process a lot easier for our customer as well. Considering that we have developed these products, their features offer flexible options that can be implemented in any system, software, and application.

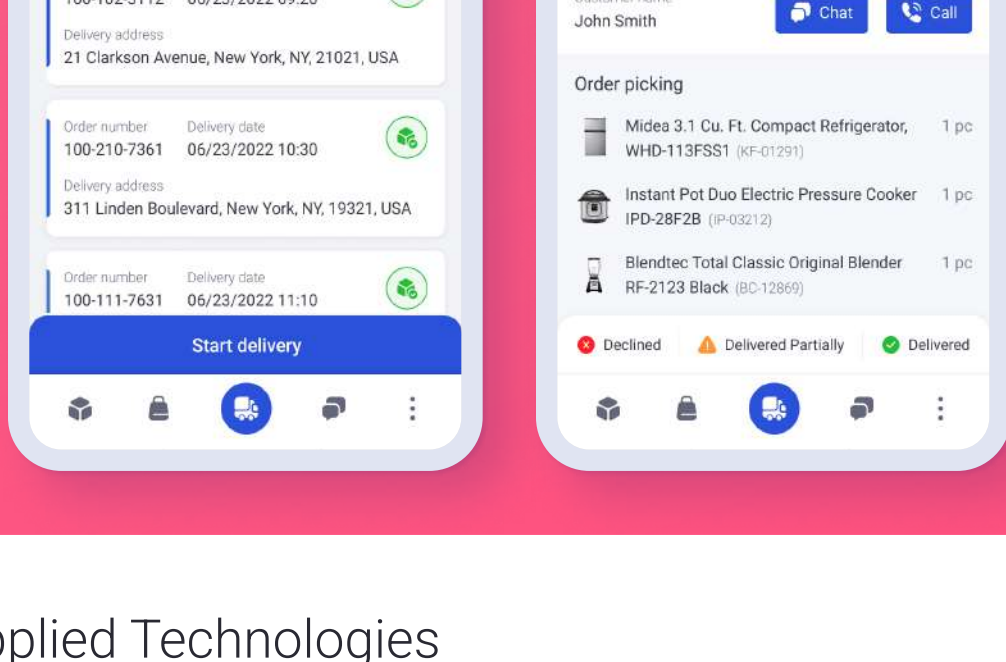
From the Webix components, we used [Kanban](#) in order to help the users to avoid obstacles in the delivery flow and let the client have transparency of all processes. Besides that, to implement all delivery scheduling features, our developers have used [DHTMLX Scheduler](#), a JavaScript event calendar component with a wide range of views and features. It has Timeline, Agenda, and other view modes with responsive design, helps to create event groups, and can be combined with other libraries. Providing the delivery management system with user-friendly interface, it became easier for the client to monitor all events and activities.



## Project in Figures

**4** Month Duration

**1400** Estimated man-hours



## Applied Technologies



## Result

The adoption of the delivery management system developed by XB software allowed our client to:

- ✓ increase control over the delivery process
- ✓ build more efficient delivery routes
- ✓ get useful insights to make data-driven management decisions

**Your questions and requests are always welcome!**