OMNICOMM

Artifleet Platform

Description of Functionality

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User requirements

The user of the system is a shipping company with a complex organisational structure. The company may have several groups (legal entities, subdivisions, branches), as well as subgroups within the group (for example, subdivisions separated by location or vehicle type). This calls for a well-thought-out architecture and the functionality to manage information about the entire company, as well as with access restricted by group/subgroup/role.

The core of the solution includes:

- **Route planning service.** Allows a route to be built quickly, its cost to be estimated, information about the trip to be sent to the dispatcher and the driver, as well as the route to be adjusted as per the location of weigh stations, toll roads, the need to bypass major cities, geozones convenient for stops, gas station recommendations, and roadside services. Includes advanced multi-factor ETA forecast and customizable user scenarios (e.g., 'winter', 'summer', 'fog', 'mountain track', 'dangerous cargo', etc.).

- **Trip dispatching service.** Allows the vehicle's location to be monitored during the trip, notifications of all route deviations (delayed arrival to the loading/unloading areas, long hours without rest, speed limit violations), deviation causes to be recorded and drivers to be contacted quickly. Allows a link or widget to be sent to the customer to track the cargo.

- **BI service.** A modern, flexible and functional tool to visualise key metrics for line management and shipping company leadership to resolve tasks in improving fleet efficiency, assessing the impact on key metrics, or monitoring selected employees in order to make managerial decisions. Allows activity heatmaps to be viewed by group or region.
  Works as a gamification element and motivational tool for drivers.
  The set of widgets for each role is defined separately. Access to the information is limited by the role in the company.

The solution is available via the web interface, API for third party ERP and BI services, and the mobile version of the website.

Client Area module. Allows the head of the shipping company to manage information about the fleet as a whole, enter/delete data on vehicles and line employees, create/manage vehicle groups, assign employees to vehicle groups, define roles within groups, monitor processes by group/subgroup or for the fleet as a whole.
- Fleet references (vehicles, employees, roles, groups, subgroups);

- Quick and convenient access to the Omnicomm multiboard;
- Option to switch between the company's various connected products and services;
- Ordering extra products and services;
- Viewing information and marketing materials;
- FAQ;
- Viewing training materials;
- Contacting the technical and maintenance support;

Functional requirements

ARTIFLEET is a SaaS platform solution available 24/7 for doing business online.

Availability of services

- **Authentification service.** The solution is available via the web interface and mobile apps.
- **Order handling service.** The solution is available via the web interface, API, and a mobile app for logisticians and logisticians/dispatchers.
- **Route planning service.** The solution is available via the web interface, API, a mobile app for logisticians and logisticians/dispatchers, and a mobile app for drivers.
- **Trip dispatching service.** The solution is available via the web interface, API, a mobile app for dispatchers, logisticians, and a mobile app for drivers.
- **BI service.** The solution is available via the web interface, API for third party ERP and BI services, and mobile apps.

Browsers

Google Chrome, Opera or Firefox, versions supported by the manufacturer.

Integration

The project architecture allows for robust integration with other Omnicomm products, as well as third-party solutions and equipment. The system's core services will be partially available for use by third-party developers, which implies the development of an in-house SDK and a hybrid web-API.

Localisation

Russian and English languages.

Security

The system under development shall provide users with the necessary level of information security. Access to information shall be restricted solely by the rights granted within the individual user role and responsibility area.
Regular backups of information, including dynamic information, shall be envisaged.
Provisions shall be made for quick recovery of system operability in the event of cyber-attacks, breakdowns, or technical failures.
The system under development shall provide users with the necessary level of cybersecurity.

UX requirements

Main wishes of the user that affect the architectural and technical requirements of the system:
- high speed of system response to user action;
- the user can understand what happens as a result of their actions, as the system informs them of progress with each request.

Architectural requirements

When developing the service's architecture, the focus shall be made on service-oriented architecture (namely, microservices). The service shall consist of components that perform relatively basic functions and interact using cost-effective REST-style network communication protocols.

By making the architecture modules more granular, the degree of meshing and interdependence will be reduced. As a result, the microservice architecture will allow for cheaper and faster upgrades and system development through individual modules during the operation of the solution.