

OOTMS (Online Order Transportation Management System) Documentation

1. Introduction

The Online Order Transportation Management System (OOTMS) is a platform that facilitates communication, coordination, and management of shipments between users (shippers), drivers, and admins. The system allows shippers to create and manage loads, drivers to receive and accept shipments, and admins to oversee and approve driver profiles. The application is subscription-based, with specific features gated behind subscription tiers.

1.2 Purpose

This document provides a detailed overview of the OOTMS application, including its features, roles, workflows, and system requirements. It serves as a guide for developers, stakeholders, and end-users to understand the system's functionality and operational flow.

1.3 Key Features

- Role-based access (Shipper, Driver, Admin)
- Authentication and profile management
- Load creation (manual and bulk via Excel)
- Driver assignment using Google Maps integration
- Real-time notifications
- Chat system between shippers, drivers, and receivers
- Equipment management for drivers
- Feedback and review system
- Subscription-based access control

2. System Overview

OOTMS is a web and mobile-based application that includes the following components:

- **Roles:** User (Shipper), Driver, Admin
- **Features:** User registration, driver profile approval, load creation, driver assignment, issue management, on-duty status, notifications, chat,

equipment management, feedback and review, and subscription-based access.

- **Subscription-based System:** All interactions in the application require an active subscription.

3. User Roles and Responsibilities

3.1 Shipper (User)

Description: Individuals or businesses needing to ship goods.

Responsibilities:

- Register and log in to the system.
- Create, update, and delete loads (manually or via Excel).
- Assign loads to drivers based on proximity (via Google Maps).
- Chat with drivers and receivers.
- Provide feedback on the app and review drivers post-delivery.

Access: Requires an active subscription.

3.2 Driver

- **Description:** Individuals responsible for transporting goods.
- **Responsibilities:**
 - Register, complete your profile, and await admin approval.
 - Toggle "On Duty" status to become visible to shippers.
 - Accept or reject load requests from shippers.
 - Request loads from shippers.
 - Report issues during delivery.
 - Chat with shippers and receivers.
 - Add and manage equipment (e.g., trailers, trucks).
- **Access:** Requires admin approval and an active subscription.

3.3 Admin

- **Description:** System overseer managing driver approvals and monitoring operations.
- **Responsibilities:**
 - Approve or reject driver profiles after registration.
 - Receive notifications for driver account creation/completion.
 - Monitor system activities (optional escalation for issues).
- **Access:** Full system access without subscription restrictions.

4. System Workflow

4.1 Authentication

- **Registration:**
 - Shippers and drivers can register via the web or mobile app.
 - Drivers must complete their profile (e.g., personal details, equipment info) post-registration.
- **Driver Approval:**
 - Admin reviews and approves/rejects driver profiles.
 - Unapproved drivers cannot access system features.
- **Login:**
 - Both shippers and drivers log in with credentials.
 - Access is restricted without an active subscription.

4.2 Load Management

- **Load Creation:**
 - Shippers can create loads manually or upload in bulk via Excel sheets.
 - Loads include details like pickup/drop-off locations, weight, and type.
- **Load Assignment:**
 - Shippers use Google Maps to find the nearest "On Duty" drivers.
 - Shippers assign loads to drivers; drivers must accept the request.
 - Drivers can also request loads from shippers, pending shipper approval.
- **Load Updates:**
 - Shippers can edit or delete loads before acceptance.
 - Both parties can reject loads post-assignment if issues arise.
- **Issue Reporting:**
 - Drivers can create issues (e.g., delays, damages) for admin/shipper review.

4.3 On Duty Status

- **Functionality:**
 - Drivers toggle "On Duty" status to indicate availability.
 - Only "On Duty" drivers appear in the available driver list.
- **Impact:**
 - Off-duty drivers cannot view or request loads, nor be assigned loads by shippers.

4.4 Notifications

- **Triggers:**
 - Load creation → Notifies nearest drivers.
 - Load assignment/request → Notifies driver/shipper.
 - Driver profile creation/completion → Notifies admin.
 - Load acceptance/rejection/issue creation → Notifies relevant parties.
- **Channels:**
 - Delivered via web and mobile app interfaces.

4.5 Chat System

- **Participants:**
 - Drivers ↔ Shippers
 - Drivers ↔ Receivers
 - Shippers ↔ Receivers
- **Purpose:**
 - Facilitate real-time communication for coordination and issue resolution.

4.6 Equipment Management

- **Driver Actions:**
 - Add equipment (e.g., trailers, trucks) to their profile.
 - Select equipment when toggling "On Duty" status.
- **Visibility:**
 - Equipment details are visible to shippers during load assignment.

4.7 Feedback and Review

- **Feedback:**
 - Shippers can submit feedback about the application experience.
- **Review:**
 - Post-delivery, shippers can rate and review drivers.

4.8 Subscription

- **Model:**
 - All interactions (load creation, assignment, on-duty) require an active subscription.
- **Enforcement:**
 - Shippers and drivers without subscriptions are restricted from core features.

5. Technical Features

5.1 Platform Support

- Web application
- Mobile app (iOS and Android)

5.2 Integrations

- **Google Maps:** For location-based driver assignment.
- **Excel Import:** For bulk load creation.

5.3 Data Management

- User profiles (shippers, drivers)
- Load details
- Equipment records
- Chat history
- Notification logs

6. User Flow Diagram

(Note: This is a textual representation. For a visual diagram, tools like Lucidchart or Draw.io are recommended.)

1. Shipper:
 - Register → Login → Subscribe → Create Load → Find Driver → Assign Load → Chat → Review Driver
2. Driver:
 - Register → Complete Profile → Admin Approval → Subscribe → On Duty → Accept/Reject Load → Chat → Report Issue
3. Admin:
 - Login → Approve Drivers → Monitor Notifications

7. Technology Stack

The application is built using the following technologies:

- Frontend: React, Next.js, Tailwind CSS, Antd, Redux.
- Backend: Node.js, Express.js.
- Database: MongoDB.
- Authentication: JWT (JSON Web Tokens) for secure authentication.
- Payment Gateway: Stripe for handling subscription payments.

- Notifications: Firebase or a custom notification service.
- Maps: Google Maps API for locating drivers and shippers

8. Conclusion

OOTMS provides a robust platform for managing the transportation of goods between shippers and drivers. By integrating features such as load creation, driver assignment, issue management, and on-duty status, the system ensures that shipments are efficiently coordinated. With notifications, chat, equipment management, and feedback systems, the platform offers a comprehensive solution to streamline transportation processes.