**Proposal for Drop Truck AI Agent for Order Management**

**Project Overview**

Drop Truck is a B2B logistics company dedicated to improving operational efficiency through innovative technologies. The objective of this project is to develop an AI-powered voice agent that will automate the creation of delivery orders through both inbound and outbound voice calls. The implementation of this AI Voice Agent is expected to streamline the order processing workflow significantly, leading to reduced manual errors and increased customer engagement. The current operational model relies heavily on manual order handling, which often results in delays, missed opportunities, and limited scalability. By integrating this AI Voice Agent, Drop Truck aims to automate the handling of inbound calls for order taking and outbound calls for lead follow-up from the CRM. This transformation is anticipated to enhance overall operational efficiency, improve accuracy in order processing, and support scalable growth.

Improve customer engagement

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| **Feature** | **Description** |
| AI-Powered Voice Agent | Automates inbound and outbound order processing |
| Operational Efficiency | Streamlines workflows and reduces delays |

**Problem Statement**

Drop Truck currently faces multiple challenges that hinder operational success. The heavy reliance on human agents for call handling and order creation results in significant delays and operational inefficiencies. As a consequence, the company experiences slow lead conversion rates, which translates into lost sales opportunities. Furthermore, the lack of a centralized order logging system complicates data management and increases the risk of errors. The high manual effort required for processing orders leads to increased labor costs, and the inability to scale operations efficiently limits growth potential. These challenges highlight the urgent need for a more automated and efficient solution to facilitate order management.

Absence of centralized order logging

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| **Challenge** | **Impact** |
| Manual Dependency | Increased labor costs and time consumption |
| Slow Lead Conversion | Inability to convert leads into orders promptly |

**Vertical Technical Architecture**

The following VERTICAL diagram shows the proposed system architecture with layered design:



Note: The diagram is designed VERTICALLY to clearly show different system layers and top-to-bottom data flow.

The following vertical diagram illustrates the proposed system architecture with top-to-bottom data flow showing system layers.

System layers and external integrations

**Objectives & Goals**

The primary goals of the Drop Truck AI Agent project are to fully automate the inbound order creation process using voice AI and to enhance outbound calls to CRM leads for improved sales follow-up. Centralizing order tracking and reporting will also be a critical objective. The success of this initiative will be measured through key performance indicators (KPIs) including achieving over 80% of calls handled without human intervention, improving lead-to-order conversion rates by 30%, and ensuring 100% accuracy in order logging. These objectives are designed to not only streamline operations but also to enhance the overall customer experience, ultimately driving growth and success for Drop Truck.

Centralize order tracking

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| **KPI** | **Target** |
| AI Call Handling | 80%+ of calls handled without human intervention |
| Lead-to-Order Conversion | Improve conversion rates by 30% |

**Functional Requirements**

The functional requirements for the Drop Truck AI Agent project include several key features that are essential for achieving the desired operational improvements. The Inbound AI Agent will be a must-have feature, enabling the AI to effectively handle incoming calls, comprehend customer delivery requirements, and create orders accurately. The Outbound AI Agent will initiate calls to CRM leads, qualify them based on their responses, and capture order details accurately. Additionally, the Order Creation Engine will log data from AI calls into the CRM, ensuring centralized order management. Integration with the CRM is critical for seamless data synchronization, and the implementation of WhatsApp or email confirmation features will provide customers with automatic updates regarding their orders. An admin dashboard will also be developed to facilitate management and oversight of all logged orders.

Order Creation Engine

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| **Feature** | **Priority** |
| Inbound AI Agent | Must Have |
| Outbound AI Agent | Must Have |

**Technical Requirements**

The technical requirements for the AI Agent system encompass various aspects necessary for successful implementation. Voice inputs from customers will be the primary means of interaction, and the system will require specific data fields from the CRM for lead interactions. The data requirements include essential CRM lead data such as name, phone number, and location, as well as order details including pickup and drop-off locations, type of goods, and delivery time. Role-based access control will be implemented to ensure data security across different user levels, including Admin and staff. Integration with major CRM solutions like Zoho or Salesforce, alongside WhatsApp API for order confirmations, will be vital for the system's functionality. The solution will be web-based with mobile-compatible features and deployed on a cloud-based platform, preferably AWS.

Role-based access control

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| **Requirement** | **Description** |
| CRM Integration | Integration with Zoho, Salesforce, or custom solutions |
| Deployment | Cloud-based platform on AWS |

**System Workflow**

The system workflow outlines the processes involved in both inbound and outbound call handling. For inbound calls, when a customer calls, the AI Agent answers the call, captures the order details, and subsequently creates the order in the system. A confirmation message is then sent to the customer via WhatsApp or SMS. For outbound calls, the AI fetches a lead from the CRM, initiates a call to the lead, confirms their intent, and captures the necessary order details, which are then logged into the system. The admin interface will allow easy viewing and management of all logged orders, with the capability to filter by date, source, or agent, thereby enhancing operational oversight.

Admin interface for order management

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| **Process** | **Description** |
| Inbound Call | AI captures order details and logs them |
| Outbound Call | AI qualifies leads and captures orders |

**Timeline & Milestones**

The project timeline includes several key milestones that will guide the development process. The first milestone involves designing the AI Agent voice flow, which will take approximately three days and depend on the voice provider and CRM structure. The next stage is setting up the inbound call functionality and order logging, expected to last five days, followed by the outbound AI and CRM synchronization, also anticipated to take five days. Subsequently, the development of the admin dashboard and WhatsApp integration will require four days. The project will culminate in a final testing and deployment phase lasting three days. Each milestone builds upon the previous, ensuring a structured and comprehensive approach to development.

Final testing and deployment

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| **Milestone** | **Duration** |
| AI Agent voice flow design | 3 Days |
| Inbound call setup | 5 Days |

**Deliverables**

The project will yield several critical deliverables essential for successful implementation and operation. The primary deliverable will be the Voice AI Agent, which encompasses both inbound and outbound functionalities. Additionally, a CRM-integrated order management system will be constructed to facilitate efficient order processing. The admin dashboard will provide a user-friendly interface for managing AI-generated orders. Comprehensive API documentation will be provided to assist with integration processes, and a deployment and user guide will be created to ensure smooth system usage and maintenance. Each deliverable is crucial in supporting the overall objectives of the project.

Admin Dashboard

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| **Deliverable** | **Description** |
| Voice AI Agent | Inbound and outbound functionalities |
| CRM-integrated Order System | Complete order management system |