

**TECH OFFER**

## AI-Powered Logistics Management & Fulfilment Platform for Global Operations



### KEY INFORMATION

TECHNOLOGY CATEGORY:  
Infocomm - Artificial Intelligence

TECHNOLOGY READINESS LEVEL (TRL): **TRL8**  
COUNTRY: **SOUTH KOREA**  
ID NUMBER: **TO175440**

### OVERVIEW

This technology is an AI-powered logistics orchestration platform designed to optimize warehouse management, order fulfilment, and transportation across distributed networks. It integrates advanced algorithms for demand forecasting, route optimization, and real-time inventory visibility. By connecting multiple warehouse operators and transportation providers into a unified system, the platform enables businesses to access flexible, on-demand logistics capacity without the need for owning physical assets.

The system is built with modular APIs, allowing seamless integration with e-commerce platforms, ERP systems, and third-party logistics providers. Its scalable architecture supports rapid deployment in diverse market environments, making it suitable for businesses facing seasonal demand fluctuations or seeking cross-border operational efficiency.

### TECHNOLOGY FEATURES & SPECIFICATIONS

- **AI-Driven Forecasting:** Machine learning models analyze historical sales, promotions, and market trends to predict demand with high accuracy.
- **Dynamic Fulfilment Routing:** Automated allocation of orders to optimal fulfilment centers based on location, capacity, and cost parameters.
- **Real-Time Inventory Synchronization:** Continuous data updates across multiple warehouses to maintain accurate stock levels.
- **Multi-Modal Transport Coordination:** Integration with domestic and cross-border carriers, enabling flexible transport modes (road, air, sea).
- **API-First Architecture:** Supports plug-and-play integration with ERP, WMS, OMS, and e-commerce platforms.
- **Scalable Cloud Infrastructure:** Handles high transaction volumes with robust uptime and disaster recovery protocols.
- **Analytics Dashboard:** Centralized interface for monitoring KPIs, delivery performance, and operational bottlenecks.

## POTENTIAL APPLICATIONS

- E-commerce fulfilment for domestic and cross-border markets
- Omnichannel retail distribution networks
- 3PL coordination platforms
- Reverse logistics and returns management
- SME access to on-demand warehousing capacity

## MARKET TRENDS & OPPORTUNITIES

This technology delivers asset-light, AI-driven logistics orchestration that enables businesses to flexibly access and optimize warehouse and transportation resources across a distributed network—without owning physical assets. Key differentiators include:

1. **Network-Orchestrator Model** – Connects multiple independent logistics providers into a unified, real-time network.

2. Dynamic, AI-Powered Allocation – Routes orders to optimal fulfilment centers and transport modes based on cost, location, and capacity.
3. Seamless API Integration – Designed to integrate quickly with ERP, WMS, OMS, and e-commerce platforms, reducing deployment time and IT overhead.
4. Scalable, Pay-Per-Use Structure – Allows businesses to expand or contract logistics capacity instantly, ideal for seasonal demand or market entry strategies.
5. Border Capability – Built for both domestic and cross-border trade, supporting multi-modal transport coordination and customs-ready workflows.

## UNIQUE VALUE PROPOSITION

Unlike conventional warehouse or transport management systems, this platform acts as a logistics network orchestrator, enabling businesses to dynamically access, allocate, and optimize logistics resources across multiple independent providers. It eliminates the need for fixed contracts or owned facilities, offering a pay-per-use model supported by AI-driven decision-making.

This ensures cost efficiency, operational flexibility, and scalability—critical factors for fast-moving consumer industries and global trade players.