

WMS Performance Optimization for a Healthcare Logistics Provider Supporting Nationwide Food Distribution



1 Introduction

Umoja Health leverages deep expertise in healthcare, nutrition, and logistics to help deliver healthier food solutions across the United States through partnerships with food banks, healthcare providers, and government agencies. Within their organization, Unidad Logistics—their Third-Party Logistics and Supply Chain Solutions division based in Houston, Texas—provides turnkey logistics services backed by more than 50 years of experience. Their operation supports customers who rely on consistent, high-performing fulfillment and inventory execution.

As facility volumes increased and operational demands intensified, Umoja Health recognized the need to improve warehouse system performance to maintain service expectations. To address these challenges, Umoja Health partnered with Alpine Supply Chain Solutions to identify root causes and execute a resolution plan for key WMS performance issues.



2 Challenge

Umoja Health was experiencing recurring WMS performance challenges that were creating operational friction and requiring unnecessary manual intervention. Leadership identified the need to root cause and resolve four critical system issues impacting fulfillment execution and overall facility performance. These challenges included order allocation and replenishment issues, system integration issues, an excessive number of operational zones requiring updates, and the need for a scalable location addressing system for a new facility. While the system continued to support daily operations, the issues increased complexity and reduced efficiency causing expanding labor needs and overtime in the order

processing area —especially during high-volume periods. Umoja Health needed not only technical fixes, but also a detailed analysis, approved cost estimate, and structured resolution plan before moving into execution.



3 Solutions

Alpine conducted a detailed root cause analysis and uncovered several performance optimization opportunities across the WMS environment. While multiple improvement areas were identified, Alpine focused on the most critical drivers impacting overall system performance: allocation, replenishment, and integration efficiency. Alpine discovered that integration performance issues were closely tied to allocation and replenishment processing time, as well as the need for periodic database statistic cleanup and recalculation.



By streamlining the allocation and replenishment processing logic and introducing periodic database statistics recalculations, system integration performance improved significantly. Alpine also determined that while the number of zones was higher than necessary, it was not a primary driver of the system's performance issues, and the zone reduction effort could be handled internally by Umoja as part of process simplification rather than urgent system remediation.



4 Implementation

Alpine followed a phased execution approach designed to protect business continuity while driving measurable improvements. The project began with joint issue definition sessions to ensure alignment between Alpine and Umoja stakeholders on the true operational pain points. Alpine then conducted research and on-site assessment activities to complete a structured root cause analysis, validating findings against real workflows and system behavior. After developing initial findings, Alpine collaborated directly with the WMS software provider to review conclusions and establish a mutually agreed resolution plan.

Once changes were implemented, Alpine worked with Umoja to validate success, confirm performance improvements, and determine whether any remaining issues required further investigation. This iterative approach ensured each fix was proven effective before progressing to the next stage.



5 Results

Following implementation, Umoja Health experienced a significant improvement in overall system performance, particularly in integration stability and allocation/replenishment execution. Manual interventions related to integration exceptions—such as “Held” and “Loops”—were minimized and in many cases eliminated, reducing workload on the operations team and improving daily execution flow. The most resource-intensive issues tied to allocation and replenishment were resolved, enabling the team to operate at full performance through

their most volatile and high-volume season. One key metric improvement was the increase in “clean days,” where operations required no manual workarounds or intervention—an outcome that had not been consistently achievable prior to the project. With Phase 1 successfully completed and the first three major issues resolved, Alpine and Umoja are now moving into Phase 2 focused on advanced configuration and operational process enhancements, creating an additional layer of long-term performance optimization.

