

CASE STUDY



CORE RETURNS NETWORK REDESIGN

INDUSTRY: AUTOMOTIVE AFTERMARKET

DEVELOPING A CORE RETURNS PROCESS THAT IMPROVES VISIBILITY, MANAGES PLANNED COMPLEXITY, AND INCREASES MATERIAL VELOCITY THROUGH THE SUPPLY CHAIN

Current State: Customer Challenges

In its current state, an automotive parts client shipped all used cores from its service centers back to remanufacturing suppliers via an expensive and lengthy less-than-truckload (LTL) transportation mode. After observing its legacy distribution network over several years, the client believed an opportunity existed to utilize unused capacity in the returning delivery trailers to pickup and return these cores to their local distribution centers, where they could then be consolidated and shipped back upstream at a reduced cost with less lead time.

The client hired LeanCor to evaluate the viability and impact of this assumption, and to determine if this was the optimal core return scenario in terms of cost containment and lead time reduction.

\$2.1 MILLION
ONGOING COST SAVINGS PER YEAR

Transportation cost savings:
24%

Lead time reduction:
10.6 to 4.6 days (57%)

Detention cost savings:
\$100K per year

Future State: Approach, Analysis, Tools, Solutions

In order to understand how a core return process change would impact the existing supply chain, LeanCor developed a project management plan

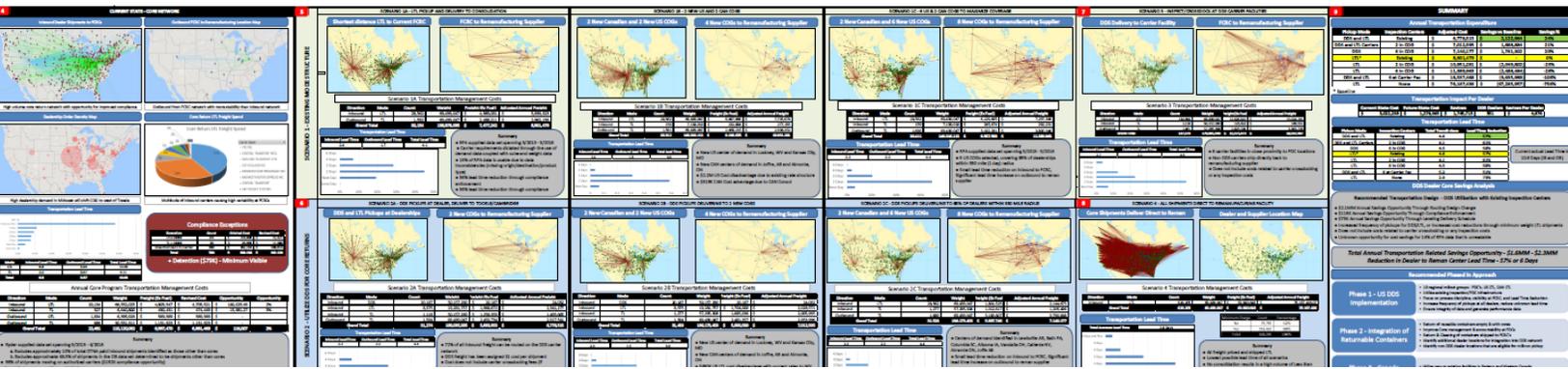
that included significant time at the gemba - including several dealerships, parts distribution and inspection centers. Working alongside the client's project stakeholders, LeanCor selected several alternative core return network designs to evaluate and identify a scenario that would result in the maximum cost and lead time reduction, while meeting all other customer expectations.

LeanCor's Lean Deployment team of consultants and engineers provided the following:

■ Core Return Logistics Network Assessment:

An analysis of the waste that exists in the current core return network due to a lack of supply chain visibility, value stream misalignment, poor quality, excessive lead times, and limited complexity and performance management.

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Scenario modeling to understand total system cost and lead time impact

■ Current-State Compliance Enforcement Model:

Lead time and cost reduction opportunities which would result from enforcement of existing standards from dealers, carriers, and facilities participating in the current model

■ Future-State Modeling:

Expected benefits from multiple innovative network designs:

- Placement of new consolidation centers in new calculated centers of gravity
- Utilization of existing outbound facilities as consolidation points for existing markets
- Direct shipments from dealers to remanufacturing suppliers

■ Future-State Recommendations:

Guidance in selection of the right scenario based on the client's lead time, complexity, financial, and operational priorities

■ Step-by-Step Road Map:

Recommended steps and phases for the transition from current state to the proposed future state

Results Thus Far: Improvements & Home-Runs

LeanCor provided a recommendation for a stable return-material flow strategy, integrating multiple segments of the aftermarket supply chain in order to manage planned complexity and increase utilization of transportation assets. **This solution included:**

- **A shift from the current method of individual LTL shipments** to using the outbound parts delivery network to pick up cores from multiple dealerships during scheduled deliveries
- **Use of the existing distribution center network** to consolidate multiple dealer returns in the pickup area into a single truckload for delivery to one of the domestic inspection centers
- **System recommendations** to provide visibility to the dealer, carrier, consolidation point, and inspection center of expected activity as well as regular updates to ETAs when exceptions occurred

■ The road map for implementation (both quick wins and long-term successes)

The project resulted in an estimated \$1.1 million in purchased transportation cost savings in the first year (12% savings from current costs), and an ongoing cost savings of \$2.1 million per year after implementation.

Other results included lead time reduction from 10.6 days to 4.6 (57% reduction) and a reduction of \$100K in detention costs per year. These costs were the result of unorganized, variable LTL deliveries at the inspection centers.

The client could now successfully move forward with an optimal logistics plan and systems to improve visibility, manage planned complexity, and increase the velocity of material through the supply chain.