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Whitepaper |

Unlocking Cost Savings
In Global Logistics

Cost saving opportunities in global logistics for a large equipment manufacturer.

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Abstract

Large OEMs have a global customer and supplier footprint, resulting in the global movement of components and finished items, making a significant portion of the supply chain costs. When the freight moves across countries, organizations look at the ocean movement separately without considering the associated land leg movements. The result is that the movement is sub-optimal, both from a cost and a service perspective. Moreover, most of this planning happens manually, resulting in further sub-optimality.

This paper will provide an overview of the transportation cost savings achieved by optimizing a global movement by doing an end to end to planning of the movement through the logistics platform features for multimodal transport planning and optimization. The paper is based on experience with a large OEM, but the application of these concepts can be for any shipper with a global footprint of global customers and (or) global suppliers.

Challenges

The pilot proved that there is a significant opportunity the Global logistics movement area. But to realize these savings, it is imperitive to overcome some challenges.

Two main challenges that we faced were

- Getting contract and scheduling data from disparate systems of the Global Network (This was the biggest challenge)
- Aligning the process and ways of working with multiple logistics planners

Opportunity

To understand the opportunity, let's take an example of a scenario where a 40-foot container of automotive parts which needs to be transported from a factory in Sorocaba, Brazil, to a warehouse in City of Industry, California, USA.

From a logistics planner point of view, there are multiple combinations of a carrier, origin port, and destination port. The number of such combinations can be huge. From the scenario on which we worked, on from Brazil to the US, there were 507 such combinations. The Logistics Planner must take care of challenging voyage schedules and the types of services. For example, RORO service is not offered by all carriers.

Fig. 1-The figure represents outbound Ocean lanes from Brazil to rest of the world.

Considering the above facts (many more not listed here), the planner must choose an optimal port manually. Imagine the planner doing this for multiple orders. So typically, the planner uses a rule of thumb. The planner selects a port nearest to the factory and then chooses the destination Port nearest to the Port of dispatch.

In this example, the planner chose the Port of Santos and the Port of Houston. Once the ports are chosen, the final movement from the port to the end destination becomes a choice of carriers.

- Using such mechanisms planners planned each leg road and ocean movements independently

Fig. 2

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End to end planning Using multi modal Optimization

Let's assume the same movement was run through a central optimization process where all the legs were considered while optimizing

Fig. 3

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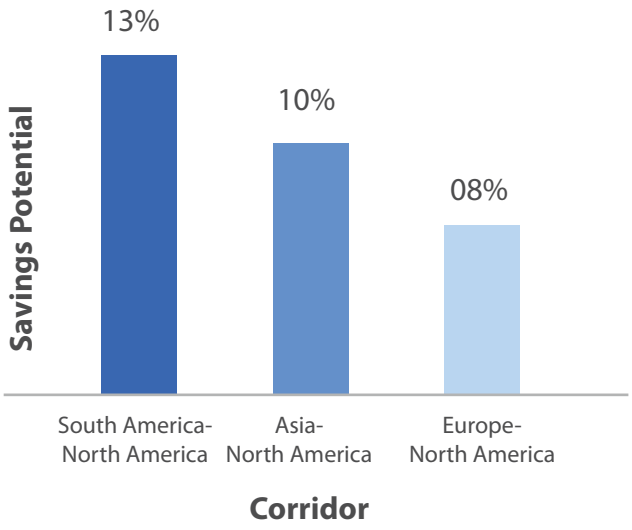
Comparing results

In this single shipment alone, you see that by using the end to end planning solution, we saved USD 2200, translating to 40 savings in freight spend.

Though the ocean leg was cheaper by USD 300 in the traditional approach, the overall cost was cheaper by USD 700 in the optimized scenario, since the benefit was obtained in the last leg of the movement, where there was a saving of USD 2500 for the optimized scenario. An end-to-end view and optimization resulting in a much better result in terms of Transportation cost and service.



The study was extended to other corridors and savings opportunity was evaluated based on historical data (comparing as is execution paths with that of optimized paths).

Fig. 4

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Conclusion

There is an opportunity to reduce Transportation costs in the Global Logistics space. The key is to look at the movement from end to end instead of looking at it in silos. For this, we need a centralized activity planning tool that looks at end-to-end network optimization and movement planning.

About us

Incorporated in May of 2017, we at Smartlinks are constantly working in making logistics reliable through innovation and technology. With our strong consulting expertise in the transportation area across the globe, clubbed with our passion to explore and bring the latest technologies to the enterprise customers your logistics problems will surely have a solution with us, be a Partner today. www.smartlinkstech.com

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