CASE STUDY INFORMATION

Shipper Customer	RR Donnelley
Case Study Tittle	Full LTL Lifecycle Automation
Objective	Digitalize the entire LTL lifecycle utilizing a full API-enabled, one-to-many connection between RR Donnelley and their various LTL capacity providers.
Participating Council Organizations	• Averitt Express • Pitt Ohio • Dayton Freight • project44 • Estes • UPS • Old Dominion Freight Line • Ward Trucking

About the council

The Digital LTL Council is comprised of industry leading Less-than-Truckload (LTL) transportation and technology providers. The purpose of the council is to facilitate collaboration, automation, standardization, and digitalization across all LTL industry participants with the hopes of elevating the industry together.

Synopsis

To capitalize on the growing demand for business and provide a better customer experience, **RR Donnelley** sought to optimize their LTL transportation spend while digitalizing the entire lifecycle of activities. While examining business processes, tools, and cost, it was noted that most processes related to successfully coordinating LTL shipments involved manual processes outside their chosen TMS. These processes lead to not only increased costs and slower reaction time but were also highly error prone and nullified the investment into their robust, digital systems.

After partnering with the members of the LTL Digital Council, RR Donnelley was able to automate the following LTL lifecycle processes: Rating, Dispatch, Tracking, and Digital Documentation.

As a result of this automation, RR Donnelly was able to realize a hard-dollar cost savings of **$250,000 per year**, as well as reduce daily call volume by **700-900**.

Legacy Technology + Processes

While examining time and capital investment across all the LTL lifecycle stages, there were two key themes that emerged continuously for the RR Donnelley team highlighting inefficient time and capital investments:

1. Manual processes, conducted either via phone or email
2. Costly, legacy EDI connections

Whether it was calling a carrier to agree on a rate or sending an email to inform the carrier of a dispatch, manual processes plagued the entire LTL shipment process from pre to post shipment. Despite the significant investment into their enterprise TMS, multiple manual data entry points were discovered that created a break in the digital chain. Errors introduced because of these manual touches lead to unnecessary cost, slower reaction time for exceptions, and in some cases missed or delayed shipments.

EDI connections, having been introduced in the late 1970's, have become an integral part of the transportation industry. As reconfirmed by the RR Donnelly team, there are several known challenges with supporting EDI connections:

1. **Finding IT talent with required EDI skillsets**
   a. As the technology continues to age and newer, faster, and more efficient digital communication formats (e.g. APIs) have become pervasive and specialty communication formats (e.g. EDI) have become more difficult to learn and recruit for
2. **Cost to configure and test connections**
   a. Because of the inflexibility and non-standardization of the EDI format, initial setup and configuration requires coordination across multiple parties
   b. Initial setup times can range from several weeks to several quarters, depending on the prioritization and EDI familiarity with both parties
3. **Ongoing maintenance costs**
   a. Inflexibility of EDI formats increase chances of single party configuration or formatting changes interpreting or totally disconnecting automated EDI functionality
   b. Due to the real-world implications of successful EDI functionality, such as is the case with a Dispatch request, fast effective triage is needed to ensure that Shippers can have freight moved in a timely manner and LTL carriers can continue to receive shipments
4. **Inflexibility with LTL transportation providers**
   a. Time and resource investment into EDI connections reduces flexibility for shippers, such as RR Donnelley, to right-source their LTL capacity based on cost, service, or other factors

Digitalizing the LTL Lifecycle

In order to bring to life the art of the possible, Averitt Express, Dayton Freight, Estes, Old Dominion, Pitt Ohio, UPS, Ward Trucking and project44 all partnered to create a one-to-many

integration platform built using an API-first approach. By creating this industry connectivity, the parties were able to address the following areas of the LTL lifecycle:

Pre-shipment Automation

Rating

Natively within their TMS, RR Donnelly is now able to instantly retrieve rate quotes for all their LTL capacity providers. This automation greatly reduced the amount of manual phone calls and emails required to secure rates, making the team much more time and cost effective. This flexibility has also allowed for better sourcing of their LTL freight capacity.

Dispatch

Once a rate is secured, RR Donnelly can now issue a dispatch request and receive automated confirmation without the need for human intervention. This automation has not only been incredibly impactful for the RR Donnelley team but has also reduced cost for the participating LTL capacity providers.

Active Shipment Automation

Tracking

Once the shipment has been picked up, RR Donnelley is now automatically alerted to status events and exceptions as their chosen LTL capacity provider moves the freight to the destination. In addition to being more proactive when handling exceptions, the team can now better inform their recipient customers and create an unparalleled customer experience.

Post-shipment Digitalization

Digital Documents

Documents related to the shipment, such as BOL, proof of delivery, and invoices are now being automatically shared via an API feed. In addition to reducing instances of discrepancy in documentation, this improvement also helps RR Donnelley capitalize on the investment of their digital TMS system.

Additionally, the automatic transference of settlement-related documentation decreases instances of manual errors and data input as it relates to payment. This reduction greatly

decreases the payment cycle of LTL capacity providers, enabling better cash flows and decreases instances of discrepancy.