



GO FROM CHAOS TO CLARITY

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on Introduction

Disruptive forces such as geopolitical changes, regulatory pressures and the on-going rise of e-commerce are driving increased complexity and risk in supply chains. Whether you're a manufacturer, retailer, distributor, or other type of shipper, you're likely responding by prioritizing efforts to improve cost control, operational efficiency, and resilience.

Understanding your cost-to-serve is critical to this effort. Why? Because cost-to-serve analysis gives you a clearer understanding of cost of goods sold (COGS) and operational costs across your supply chain.

But supply chain data suffers from low standardization and mass fragmentation across networks. Transportation and spend data are hit particularly hard because of complex systems and a spectrum of data sophistication across carriers.





On one end, you have the Big Four parcel carriers who drown their customers in data which means you cannot keep up with your true costs (who can keep up with all the new accessorials and fine print?). On the other end, you have regional mom-and-pop carriers who deliver great service but send you a photo of their BOL. Standardizing and reconciling these two is a nightmare.

If you're struggling to accurately measure and manage your freight and parcel shipment costs, you're not alone. Disconnected data sources in difficult formats make measuring, auditing and allocating costs hard, especially when using manual workflows.

Fortunately, there's a solution to this cost management conundrum.

Logistics-AI makes it faster, easier, and more efficient to manage supply chain and spend data so you can accurately track your costs. Leveraging this next-generation technology, enables you to calculate your cost-to-serve, get better control over your finances and gain a comprehensive view of how your costs affect profitability.





⁰² What is cost-toserve?

Cost-to-serve measures the direct and indirect costs of producing products and servicing customers. This analysis empowers you to understand margins, assess profitability, and make necessary changes within your supply chain so you can make more money on each customer.

Direct costs

Costs with a clear link to a particular good or service being acquired or produced. You can directly tie the cost to the final product.

Indirect costs

Expenses that generally benefit multiple products or services, making it difficult to directly tie them to a single good.

Your cost-to-serve will vary based on your industry, products, services, org structure, company size, ...the list goes on and on. It can also change based on the team you're on because each team has a unique perspective into the business.



Your cost-to-serve varies by team

Each team is responsible for serving your customers in different ways, so there are different "flavors" of cost-to-serve. Your finance and executive team's job is to combine these flavors to get a comprehensive view of your customers and their costs.

Transportation's cost-to-serve

If you're on the transportation team, you're concerned with the operational expenses associated with shipping goods. You need a breakdown of the cost per shipment, customer, and facility. You also need visibility into carrier compliance because that influences the other costs, often leading to higher operational expenses if not appropriately managed.

Transportation managers traditionally monitor metrics such as

- cost per pound
- cost per shipment (including package/freight, fuel, accessorial costs and total cost)
- cost per lane per mode

However, in 2024, that is not enough. Today, to maximize every dollar deployed and shipment sent, teams need to track:

- frequency of lane
- cost per customer
- impact of service level
- impact of accessorials

- route optimization
- load optimization
- carbon footprint





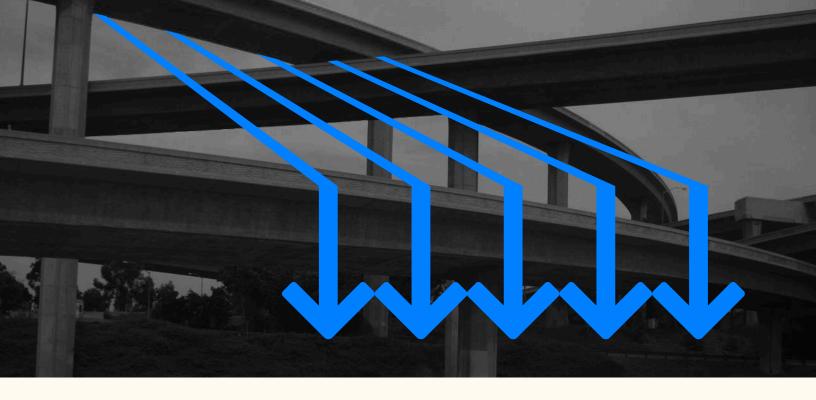
Finance's cost-to-serve

If you're on the finance team, you're looking at COGS, resource allocation and operational expenditures to calculate the cost per product. Your role is to set competitive yet profitable pricing structures and determine the overall margin. So you need precise, reliable transportation data to properly measure:

- cost per product/SKU
- cost per unit
- cost per customer

If you're not accurately reporting on all of them, then you'll set your product price incorrectly which can hurt sales and your company's growth. Not to mention, your financial reporting and modeling will be off.





Executive's cost-to-serve

Finally, if you're on a team responsible for General and Administrative (G&A) functions or in the C-Suite, you're laser-focused on strategic growth. You're looking at the cost per product over its lifecycle, considering customer demand and optimal pricing strategies. You're making investment decisions about customer segments, identifying similar highvalue customers, or deciding when to let go of less profitable ones.

You need all of your teams to accurately measure their cost-to-serve so you can look at your company's:

- Total cost-to-serve
- Average cost-to-serve
- Median cost-to-serve
- Individual cost-to-serve for your top customers

A key metric for you is the average cost-to-serve, which includes COGS, resources and average G&A costs. Here, efficiency and scalability become paramount because your goal is to maintain existing resources while expanding the customer base through automation and innovation.



⁰⁴ Unknown transportation costs hurt your cost-toserve

Historically, transportation costs represent about <u>6-8% of a shipper's total revenue</u>, and that's a large proportion of your costs not to get right. Taking an "average" approach is inaccurate and financially risky because not all customers are equally profitable or have the same cost to serve. If you can get an exact figure on what it costs to serve each customer, then you can track it over time.

Transportation costs represent about 6–8% of a shipper's total revenue – that's a large proportion of your costs to not get right.

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Transportation costs vary depending on the mode, lane, carrier, delivery time, negotiated rates, fuel surcharge, etc. Additionally, each mode has different inputs that impact costs.



\int_{0}^{1} Transportation costs by mode

- FTL Mileage
 - Equipment type
 - Accessorials detention, layover, lumper, driver assist, straps and tarps, etc.

LTL o

• Carriers use freight class as the basis for pricing, determined by inputs such as:the shipment's weight and density, measured in pounds per cubic foot

- ease of handling
- liability
- ability to co-mingle with other products

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- Tariffs (SMC3, carriers)
- Weight
- Origin and destination zip codes
- Accessorials excess liability, hazmat charge, liftgate, over dimension, redelivery, etc.

Parcel • Package (freight) charges

- Package Level Details (PLD)
 - Weight
 - Dimensions / Dimensional Weight / Billed Weight
 - Billed DIM weight
 - Origin (Sender)
 - Destination (Receiver)
- Service-level
- Accessorials

- Distance
- Delivery Area

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- Zone
- Zip
- State

Understanding Your Cost to Serve: Go from chaos to clarity

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Ideally, you should build these inputs into your forecasted costs to serve a customer. But in the supply chain, reality often deviates from the plan, the inputs are complex, and shipment volumes vary, resulting in a reconciliation nightmare for finance and transportation teams.

If you want to define and monitor cost-to-serve accurately, you need to audit line items on carrier invoices down to a penny.



Imagine this...

A customer has poor warehouse management, forcing the carrier to wait to unload. That means you're going to get hit with a high detention accessorial charge that increases your cost-to-serve. **If you don't detect this on the invoice, how can you fix these issues and reduce costs?**

Or perhaps you have contractually obligated performance standards for delivery times with a top customer, so the transportation team always ships FedEx First Overnight or UPS Next Day Early AM Air. **But is that always necessary?** The customer has some locations where a lower service level, like FedEx Priority Overnight and UPS Next Day Air, still meets its standards but costs you less money.

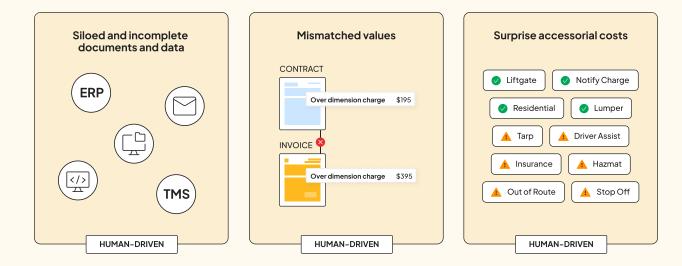


So why is measuring cost-to-serve so hard?

Too often, shippers don't know they've got a profitability problem because they don't know how (or can't) measure their cost-to-serve, and they may be missing the big picture because:

Transportation costs are hard to track: If your transportation data is disconnected and hard to use, it's difficult to measure costs down to each line item and then roll these costs up to a carrier, customer, lane, and product level.

Inaccurate cost allocation: If you can't drill down to a line-item-level cost, then it's nearly impossible to allocate those costs. This can lead to budget allocation issues, non-budgeted expenses, unaccounted expenses, and compliance issues that hurt your cost







Measuring cost-to-serve manually and in-house requires significant time and resources. It inadvertently increases the cost to serve because you're adding more costs (labor, tech, time, etc.) to solve the problem. Measuring time and effort by people is difficult even for the most sophisticated teams, so many companies end up using averages – which aren't perfect but are at least directionally informative.

Keep a few points in mind as you go along this journey.

First, the metrics used to measure your cost-to-serve will be dependent on your business. Second, your level of sophistication and access to data will determine what you can measure. And third, it's important to pick the same set of metrics to compare across all of your customers.

The most important thing is to get started. So choose a handful of metrics to define version one of your cost-to-serve. Then, you can iterate and expand it as you learn.

Here are some samples of inputs you could measure to determine your cost-to-serve:

Retailers

Direct Costs

- Product price
- Logistics
 - Transportation
 - Receiving
 - Storage
 - Order fulfillment
 - Returns processing

Indirect Costs

- Resources (marketing, sales, finance, customer service)
- Technology



Financial Services

Direct Costs

- Salaries and benefits for personnel delivering services
- Technology
- Client onboarding and engagement

Indirect Costs

- Client acquisition
- Resources (marketing, sales, finance, customer service)
- Facility costs
- Risk, security, and fraud prevention



Manufacturers

Direct Costs

- Materials
- Labor
- Manufacturing overhead
- Logistics

Indirect Costs

- Quality control
- Research & development
- Resources (marketing, sales, finance, customer service)
- Technology

Distributors

Direct Costs

- Product price
- Logistics

Indirect Costs

- Resources (marketing, sales, finance, customer service)
- Technology

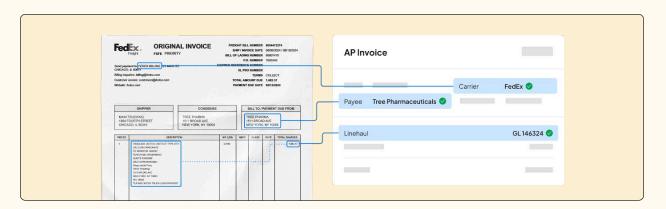


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How does logistics-Al simplify cost-to- serve analysis?

In a highly complex and fragmented supply chain, mismatched and inconsistent data makes it difficult to truly understand your financial status. Maybe you've done a great job tracking data on the movement of your shipments in the last decade, but you (likely) haven't achieved the same visibility into your shipment costs.

Line items on invoices are often incorrect (up to 20% of the time!), and without visibility, your financials may not line up with true costs. Moreover, you can't understand your cost per carrier or cost per lane, let alone your cost per shipment and cost per customer. These metrics are crucial in understanding cost-to-serve and identifying ways to reorganize facilities or carriers to minimize it.



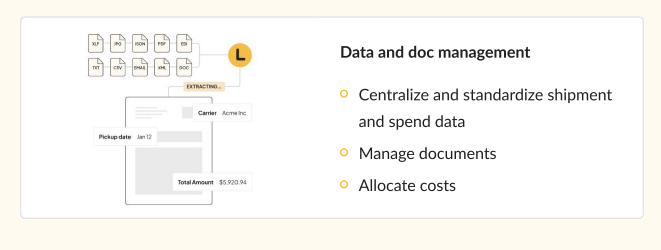
You should be able to track carrier invoices down to a line-item level so you can assign costs to different buckets such as GL codes, customers, lanes and products. But to do that, you need to unify your shipment and spend data so you can appropriately break down and roll up your costs.



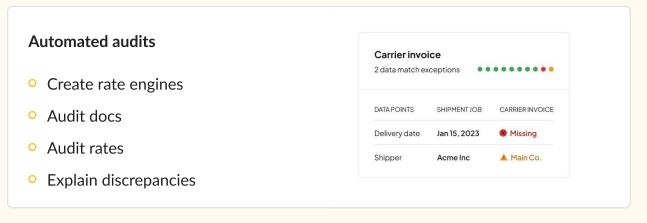
This is what Loop's logistics-AI delivers.

Logistics-AI from Loop centralizes shipment and invoice data by ingesting data from any source (EDI, API, and email) or format (CSV, JSON, JPG, JPEG, PDF, PNG). Then Loop's AI cleans and standardizes messy data so it's usable. You no longer have to do the mental gymnastics of mapping UPS's Next Day Early AM Air to FedEx's First Overnight.

Further, Loop links all shipment data across carriers and documents to ensure consistency and accuracy. No more staring at and comparing shipment IDs or purchase orders.



Here is what Loop does for you:





Øuick pay 2 days left	2 days left	Precise payments
Invoice total \$4000.00 1.5% quick pay discount -\$60.00	 Manage adjustments 	
	 Schedule payments 	
Total	\$3400.00	
		 Send payments at specific times
✓ Approve		
 Approve 		 Activate quick pay

Actionable Analytics	
 Search any meta data - tracking IDs, invoice numbers, etc. 	Liftgate 71% MoM increase
 Create carrier scorecards 	
 Analyze accessorials 	
 Gain network insights 	Aug Sep Oct Nov
 Plan scenarios 	

The key takeaway is that if you have granular data points and the platform to aggregate and derive insights from them, you can identify inefficiencies and wasted spend.





\$352,832 in savings realized.

<u>**GILLIG**</u> invested in Loop to obtain granular cost analysis and found that they were often sending multiple different LTL shipments to the same customer from the same warehouse per day. This insight meant they could dramatically reduce their cost-to-serve by finding \$352,832 in savings.

Hidden costs of flat-rate shipping.

Before Loop, a leading manufacturer charged every customer a flat rate of 8% of the revenue order for their freight cost. This one-sizefits-all approach masked significant variations in actual shipping expenses.

Loop's implementation exposed these inconsistencies. They discovered that freight costs ranged from 6% to 20% for different customers.

This meant that some customers were significantly underpaying for freight (up to 14%!) which cut into their profit. Whereas for the customers that were paying 6%, they had 2% that went straight to their profit margin.

Now, with better cost analysis from Loop, they are able to always charge the right price for their transportation expenses.







⁰⁷ Cost-to-serve analysis with Loop

Here's the bottom line. Accurately auditing every transportation invoice down to a penny and automating workflows allows you to improve operational and financial efficiency, which in turn lowers your cost-to-serve.

Most importantly, you can set a baseline for your true cost-to-serve enabling you to uncover patterns and trends. Ultimately, that enhances strategic decision-making and boosts profitability across channels, customers, product types, production lines, facilities and processes.

Get started today

