TERANALYTICS

CARGO saves $20M+ by optimal intermodal routing of import, export, and empty containers

A major maritime company uses CARGO to plan the daily intermodal routing of millions of containers per year



Augment the capability of your Control Tower with data-driven recommendations in order to optimize daily routing decisions. You can also run scenario analysis to pressure test the resilience of your company by changing operational constraints and contract terms with your various providers, and examining the impact on your bottom line.

THE CHALLENGE: Millions of containers need to be routed every year, planning their daily dispatch via carriers whose contracts may be conflicting and misaligned. What looks like the cheapest route could lose money in the long run due to contractual penalties.

Operational inefficiency: routing each container on its cheapest route, without visibility of the whole network, can trigger contractual penalties for unfulfilled volumes.

Complex and changing carrier networks: carriers open and close connections between cities, so a routing guide needs regular updates to stay optimal. Routes that are not re-evaluated lose efficiency over time.

Highly complex analytics: millions of containers annually, distributed across hundreds of ports and many more stations, transported by 10+ main carrier providers in the US with their own constraints, penalties and incentives, serving thousands of customers some of which have special requirements. The problem quickly grows beyond what spreadsheets can handle.

Heavy computational resources: this large-scale problem requires a flexible solver which can quickly scale up to handle the required complexity. The Teranalytics engine is built for this scale.

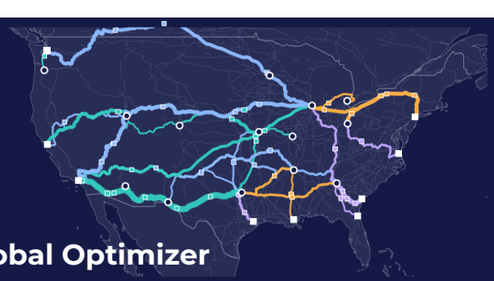
CARGO AT A GLANCE

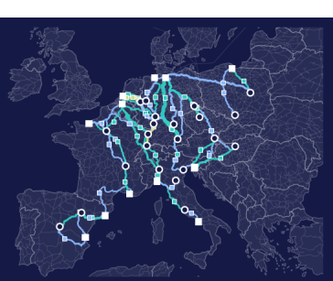
Millions
of containers routed every year

10+
carriers with their own contracts and incentives

Hundreds
of ports and stations in one network

$20M+
estimated impact over one year of operation

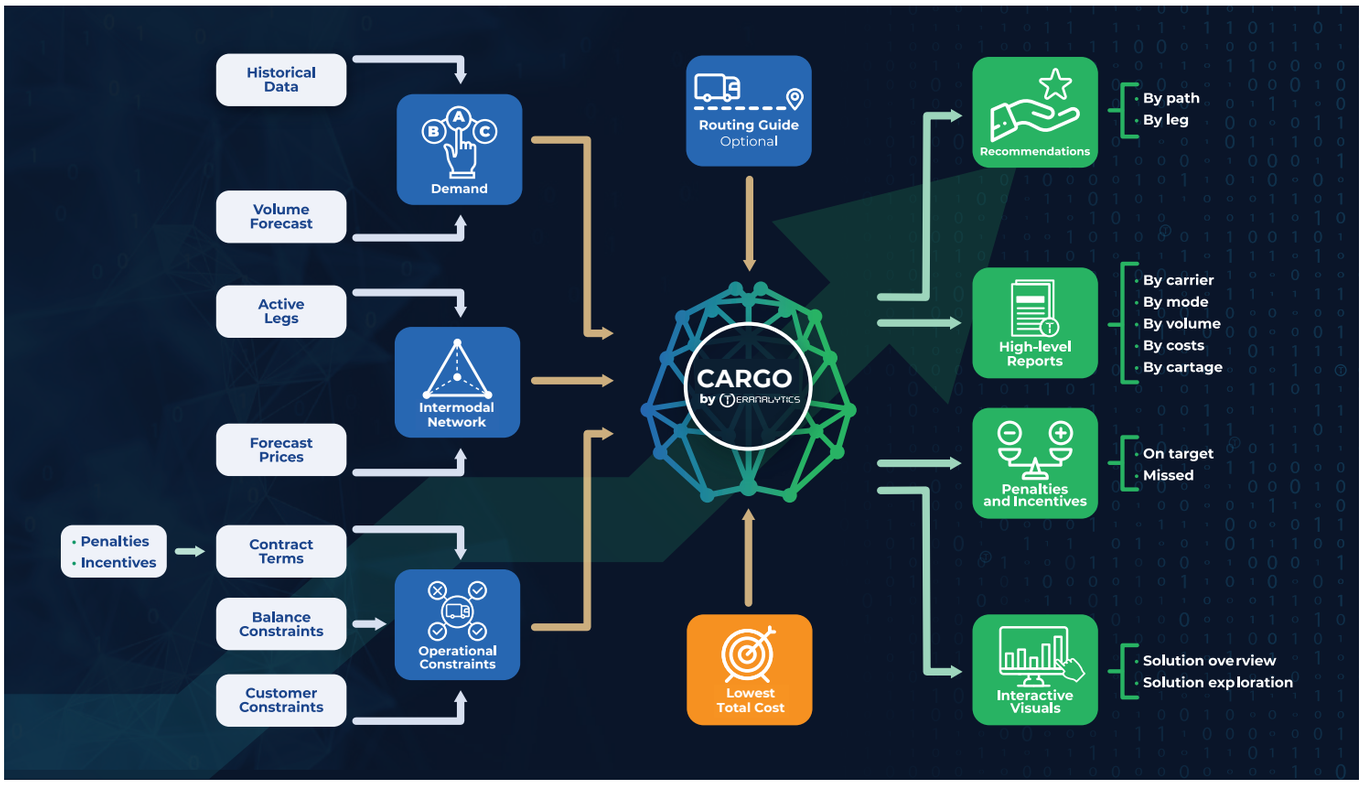




CARGO
Container Allocation and Routing Global Optimizer

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THE SOLUTION: CARGO augments your experts with optimal container routing



Adapt CARGO to your operational constraints: Teranalytics works very closely with you in order to understand and implement realistic operational constraints into CARGO. This includes: your active network and routing restrictions, calendar commitment, incentives and penalties by carrier, misaligned contract terms, customer & commodity constraints, special customer pricing, and all costs (linehaul, fuel, lift, forecasted costs, others).

Connect CARGO to your data: streamlined data updates ensure that the user can generate results with the latest data, as frequently as necessary, compatible with monthly and weekly planning cycles. Alternatively, send Excel files to CARGO and receive the results automatically.

Customize your reports: CARGO standard reports are converted into your preferred formats to be readily consumed by your expert. This includes: summary of costs by carriers, recommended routes with highlights on new routes, comparison between previously recommended and actually implemented routes, restricted solutions to specific operations, overall cost comparison, and visuals for quick solution exploration.

THE RESULTS: Your Control Tower can plan daily operation using CARGO and can run scenario analysis by varying external constraints.

Financial impact: CARGO's impact over one year of operation has been estimated at $20M+.

New strategy definition: CARGO recommendations uncover new strategies for container routing and subsequent contract negotiations, suggesting where most savings could be quickly attained, ensuring the highest ROI. For example: accept some penalties in one contract in order to materialize higher incentives in another.

New tactical implementation: Upload your latest actuals and get updated recommendations. By running fast and at scale, CARGO enables you to adjust daily operations as a function of latest realized shipment transactions and newly negotiated costs.

High speed optimization: CARGO is a state-of-the-art optimizer which runs on Amazon Web Services, allowing you to handle the largest logistics problems with high speed computation, enabling scenario analysis and continuous monitoring of operational efficiency.