



3 Key Aspects of ORTEC's Platform



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Introduction

Having a long history of applying advanced operations research techniques to complex routing, scheduling, and logistics problems, ORTEC has differentiated itself by tackling optimization challenges that are computationally difficult and operationally nuanced, particularly in private fleet, secondary network environments. Recent product direction reflects a continued emphasis on addressing foundational gaps in fleet routing and transportation planning that many legacy solutions have historically approximated or sidestepped.

Based on ongoing evaluations and recent product briefings, JBF Consulting has identified three key areas setting ORTEC apart in 2026:

1. Territory Planning Sensing Disorder
2. Traffic Cognizant Routing
3. Load Building

Each of these areas is analyzed below, followed by JBF's perspective on the platform's direction



Area 1
**TERRITORY PLANNING
SENSING DISORDER**



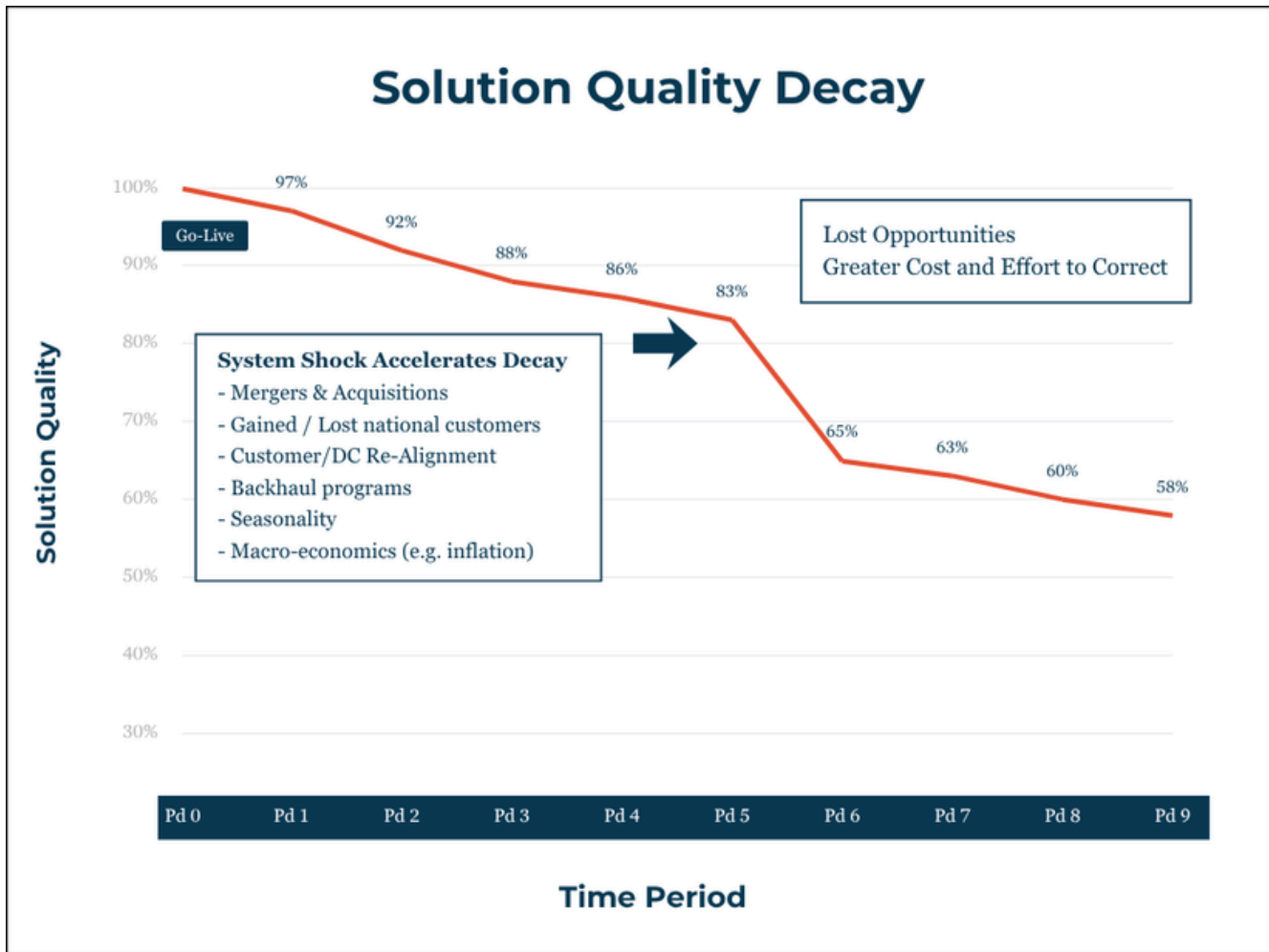
JBF SENTIMENT RATING™
Strategic Value | 4 out of 5

In high-density, localized secondary network private fleet routing scenarios (common in verticals such as wholesale distribution, foodservice, and beverage distribution), a process called territory planning is used. The objectives of the territory planning process are twofold:

1. Determine the optimal service cadence for each customer. Some customers may require service multiple times per week. Conversely, others may just warrant a single delivery in a month. The complexity comes with all the possible permutations inherent in this model.
2. Based on the defined cadence, a territory planning solution then develops a set of master routes, by day of week, that are used as the initial starting point for daily routing.

While the process can yield significant fleet savings through reduced mileage and driver “windshield time,” it can be costly to implement. The changes introduced when redesigning master routes are often highly disruptive both to customers and internal stakeholders, such as drivers, sales, and operations.

However, territory planning is an indispensable process that private and / or dedicated fleets that operate in this echelon of the network must master to wring out master route inefficiencies that will naturally arise over time.



While territory planning solutions have been around for decades, ORTEC is looking to answer the fundamental question of WHEN is the optimal time to perform a territory redesign. Master routes are designed around network assumptions – customer delivery requirements, predictable order sizes, equipment and driver availability, etc. As time goes on, the network evolves as customers come and go, order quantities fluctuate, new products lines are introduced, etc.

Historically, territories are reevaluated on a standard or arbitrary cadence. However, the optimal approach is to consider current network dynamics and analyzing if potential benefits outweigh the estimated cost and disruption of change. Master route redesign should be performed based on factors affecting master route quality, not just a standard / arbitrary cadence.

Within the routing and territory planning solution, ORTEC is using proprietary measurements that quantify the efficacy of the current master routes, with estimated savings potential associated with a territory and master route redesign. This takes the guessing game out of potential savings opportunities, and while each organization will need to determine the cost of change (e.g. customer and internal pain), the transport group now can come armed with statistics that highlight the need, or lack thereof, of performing a territory update.

JBF Perspective

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The ability to quantify solution decay will enable shippers to understand the optimal time to perform a territory and master route redesign, and JBF believes it is an invaluable feature.

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As a future enhancement, JBF would like to see a cost factor incorporated into the decision framework. Consider a practical example: if ORTEC's analytics flag a 12% efficiency opportunity, but the redesign would disrupt 200 customers and risk driver attrition, is the trade-off still worthwhile? Without quantifying the cost of change, possibly through proxies such as customer churn, driver turnover, or downstream DC inefficiencies, the decision remains incomplete. Incorporating a cost factor transforms this from a one-sided savings calculation into a true balanced scorecard, enabling organizations to weigh efficiency gains against operational and relationship costs before committing to a redesign.



Area 2
**TRAFFIC
COGNIZANT
ROUTING**



An overlooked limitation of most commercial route optimization solvers is that they do not use variable transit time calculations between stops based on time of day or day of week. In other words, legacy solvers assume that it always takes the same number of miles and time to traverse between two points in a network. While the leading Geographic Information System (GIS) providers store accurate historical traffic data – this is how Waze knows it will take an hour at rush hour versus 30 minutes at 2:00 am - this data is not used in daily planning due to the excessive processing time that would be required to continuously re-calculate transit times every time a new route sequence or start time is evaluated.

Given that transit time and distance are critical inputs into the route optimizer, the inability to build routes and assign route start times cognizant of known traffic patterns inhibits the adoption of algorithmic based daily routing in favor of static master routes or hybrid dynamic/master route daily scheduling. It also leads to routers losing faith in the ability of the solver to develop operationally feasible routes.

ORTEC, long known for its expertise in operations research, has improved their method for calculating travel paths with its Vectorized Shortest Path Algorithm (“VSPA”). VSPA enables real-time, high-speed route optimization by using up-to-date GIS maps and traffic information, thereby being one of the first to address this long-standing issue at a speed that outperforms previous calculation times reported in industry reports. This improves the decision speed for territory planning and master routes, daily dynamic routing, and re-routes during execution.

JBF Perspective

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This is a long-needed improvement that holds the potential to dramatically increase the quality of dynamic and master routing results. Over the years, JBF has seen a variety of approaches prototyped that attempt to address variable time/distance calculations, but solutions either lacked quality or runtime performance degraded to the point of being operationally infeasible for most fleet operations.

 **Area 3**
LOAD BUILDING

Opportunity Area 1 - Stock Transfer Order Generation Cognizant of Item, Vehicle, and Travel Path

A consistent area of opportunity we see in the consumer goods space is the underutilization of trailer capacity when performing inter-facility movements. Unlike customer orders, stock transfer orders (STOs) between DCs use up the entire capacity of a trailer, given there is little to no incremental cost of shipping 35,000lbs versus 44,000lbs.

However, we often see shippers with STO orders that are built ignorant of the true capacity of a trailer. In practice, load planning is a multi-dimensional problem – effectively a 3D Tetris challenge – involving a range of interrelated constraints that most manual planning processes cannot adequately address simultaneously:

- **Cartonization:** selecting the right carton for each product given its dimensions, weight, and fragility
- **Palletization:** stacking products onto pallets while respecting height limits, weight distribution, and product compatibility rules
- **Loading sequencing:** determining which products can be loaded together to maximize fill rate, while adhering to delivery sequence, temperature zones, or other compliance requirements
- **Axle weight and road restrictions:** ensuring the loaded configuration complies with legal weight limits per axle across the planned travel path

Because most companies plan logistics upfront and manually, they simplify the problem considerably. The result is predictable but inefficient: excess packaging, suboptimal trailer fills, and a persistent capacity imbalance. Shippers either plan for too little (requiring an additional truck) or too much (paying for unused freight capacity and generating unnecessary emissions). Essentially, shippers are either shipping air or building loads that cannot feasibly fit onto a trailer.

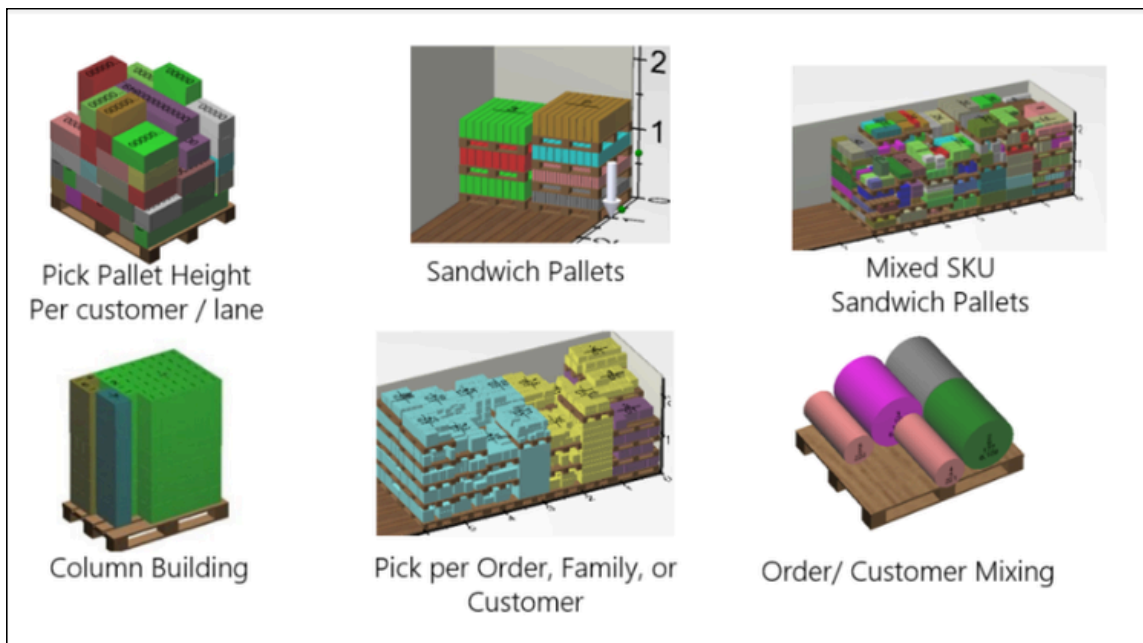
ORTEC's load building solution optimizes the creation of STOs by determining the ideal splits and load configurations to maximize trailer capacity and reduce transportation costs. The solution can assess a wide range of real-world constraints simultaneously, including product dimensions and weight, packaging type, stackability rules, axle weight limits, and road restrictions. It allows planners to visualize and validate load plans using a 3D representation of the vehicle. Critically, this covers all three layers of the load planning hierarchy: cartonization (product-to-carton assignment), palletization (carton-to-pallet stacking logic), and trailer loading (pallet-to-vehicle placement). Shippers gain an end-to-end capability that few solutions in the market address in an integrated manner.

Opportunity Area 2 – Integrated Load Building with Multi-Stop Route Formation

When there are multiple stops on a vehicle, the capacity of the vehicle is sometimes reduced. For instance, two different customer deliveries may not be mixed within the same pallet. This will reduce the total cube that a vehicle can haul. Historically, to address this problem, routing providers have created diminishing vehicle capacity tied to stop count. For instance, a 1-stop route may be able to have a 1600 cube capacity limit, but a 2-stop route may have a 1500 cube limit.

This is a sub-optimal heuristic that indirectly addresses the problem. Given the cost of an overload identified at the dock, we typically see transportation planners become very conservative and overly constrain vehicle capacity, which in turn leads to underutilized vehicles.

ORTEC's load-building capability, integrated with route planning, directly addresses the problem. By understanding key information such as what product will be on a pallet, how the pallet should be orientated within the vehicle, and how the overall trailer will be loaded, Load-Building integrated with multi-stop route formation eliminates the need to use stop count capacity degradation logic in favor of true vehicle capacity determination dynamically determined during the routing process.



JBF Perspective

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The integration of load building with transportation planning, done in a manner that is cognizant of the attributes and items of a specific order, is a long-needed improvement that holds the potential to significantly decrease freight costs for shippers.

Transportation Management and Routing systems are not designed to comprehend, beyond high-level trailer capacity constraints (e.g. Weight, Cube, Pallets), how to dynamically maximize trailer capacity.

Given the operational costs to the DC when a blowout occurs (i.e. the shipment cannot physically fit on the trailer), TMS and Routing systems are configured to minimize the probability of a blowout by artificially lowering trailer capacities. Using the same pallet and load building logic used within the DC during route building holds the promise of increasing average trailer utilization metrics without introducing operational chaos at the DC.

Summary

ORTEC continues to innovate in meaningful ways, especially as it pertains to optimization in distribution-heavy industry verticals, including foodservice, grocery, beverage, and wholesale distribution, as well as other environments characterized by complex loading and routing operations.

Innovations in determining optimal re-route timing, integrating real-time traffic data into routing algorithms, and combining load-building intelligence with route formation are all areas that have historically been underserved due to their complexity. This has led to shippers developing rules of thumb and workarounds driven by incomplete solutions they have implemented.

JBF believes ORTEC is pioneering significant, non-incremental improvements that hold the potential to unlock significant value. This is especially important in many of the industry verticals that ORTEC is targeting, which typically have low margins and where efficiency is highly valued.

About JBF Consulting

JBF Consulting is a leading logistics strategy advisory and technology integration firm that partners with shippers to transform their logistics and supply chain execution operations. We empower clients to achieve operational efficiency and scalable, sustainable value through strategy development, roadmap orchestration, unbiased technology selection, expert implementation, data-driven insights, and ongoing managed services. For over two decades, our client-centric approach and alliances with best-of-breed solution providers have ensured that every strategy and solution we deliver drives measurable impact, long-term success, and customer satisfaction.



Contact JBF Consulting to discover how our team can help you modernize, mitigate risk, and drive sustainable growth through your transportation management system investment.

Email us at contact@jbf-consulting.com or visit us at jbf-consulting.com.