Explore the Future of Third-Party Logistics

Discover how Blue Yonder solutions help 3PL companies drive results by moving at the speed of change

BlueYonder

Fulfill your potential™

Explore the Future of Third-Party Logistics

Today's third-party logistics (3PL) industry is under extreme pressure — which means radical innovations are needed.

The rapid, global shift to e-commerce is placing the burden on logistics providers to deliver faster, cheaper and more flexibly, serving multiple fulfillment channels simultaneously. At the same time, 3PL companies face dramatically rising costs. And today's environment is characterized by more volatility and disruption than ever, from demand shifts and labor shortages to port delays and weather emergencies that interfere with end-to-end supply chain performance.

The answer? A digitally connected operational model that's designed for real-time visibility, agile daily execution and a unified, collaborative response when disruptions inevitably occur.

Advanced technology, supported by artificial intelligence (AI), can help third-party logistics providers dramatically and quickly improve their foundational processes, achieve growth while managing labor shortages and other constraints, form closer partnerships with customers, leverage automation and robotics, and expand their service offerings for innovation and a competitive edge.

By digitizing their operations, 3PL companies can act quickly to configure, and reconfigure, their operations and footprints for extreme speed and responsiveness. Market volatility and rising service expectations are here to stay. 3PL providers need to turn this fact into an opportunity, instead of a challenge.

In this eBook, we'll discuss seven use cases

that showcase how Blue Yonder's solutions can help third-party logistics providers optimize their performance in today's volatile market environment:

1 Network Design & Optimization

2 Unified Logistics & Execution
a. Omni-Channel Fulfillment
b. Warehouse Management
c. Transportation Management

3 Intra-DC Digitization

4 Real-Time Visibility & Orchestration

The 3PL Challenge: Trends

01

Continuous Process Improvement

Maximize margins, grow revenues, improve efficiency and customer service

02

Management of Growth and Labor Shortage

Improve labor conditions, grow revenue by increasing DC assets, eliminate straining DC work

03

Shift to E2E Fulfillment

Expand service offering from traditional business model (trucks & sheds) to become supply chain partners

04

IOT, AI & Robotics

Become "connected," seamlessly manage DC capacity & throughput, improve working environment

05

Expanded Offerings

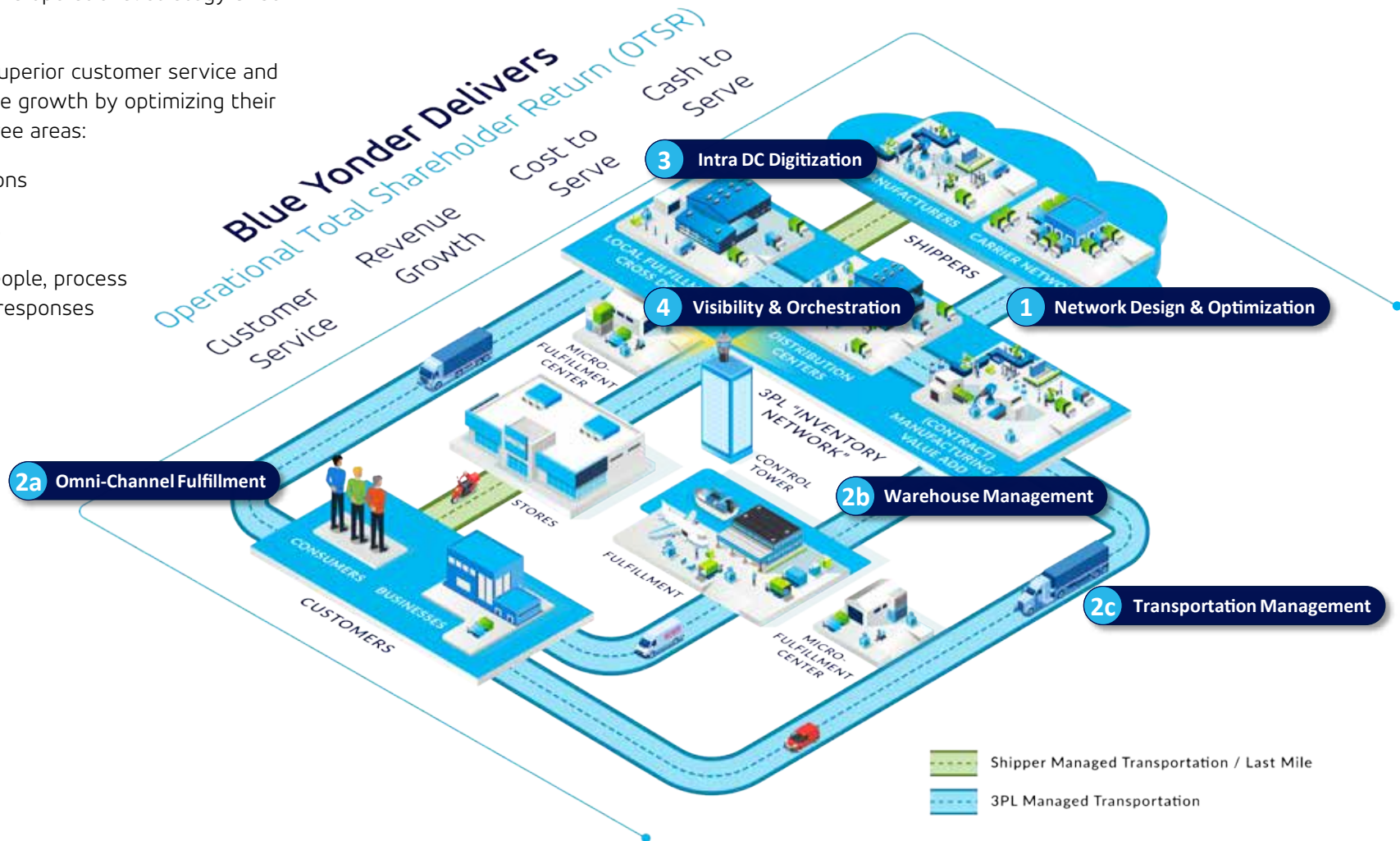Grow revenues, improve margins via contract increases, meet the "intelligence" challenge

Optimizing the 3PL End-to-End Supply Chain

Today, 3PL providers can capitalize on a unique opportunity to contribute to the operational total shareholder return (OTSR) by truly connecting business strategy, financial strategy, and supply chain and operational strategy under a common plan.

They can deliver superior customer service and continuous revenue growth by optimizing their performance in three areas:

- Running operations
- Managing assets
- Orchestrating people, process and technology responses

This new way of thinking, demonstrated by the use cases shown below, supports critical structural reforms, as well as reductions in annual costs and working capital.

Blue Yonder Delivers
Operational Total Shareholder Return (OTSR)
- Customer Service
- Revenue Growth
- Cost to Serve
- Cash to Serve

1 Network Design & Optimization

2a Omni-Channel Fulfillment

2b Warehouse Management

2c Transportation Management

3 Intra DC Digitization

4 Visibility & Orchestration

Shipper Managed Transportation / Last Mile
3PL Managed Transportation

1 Network Design & Optimization

In today's fast-changing environment, 3PL companies must continuously evaluate their network design to ensure that it supports speed, agility, resilience, profitability, innovation and sustainability. Network optimization is no longer an annual event, but instead must be a monthly or weekly process.

The new operating models adopted by retailers and manufacturers — largely driven by e-commerce growth — require 3PL providers to also implement new business models and logistics footprints. The network design must be configured to deliver high service, at the lowest possible cost, to protect profit margins. This might require moving facilities closer to demand, reducing empty miles, exploring dual-sourcing or near-sourcing strategies, and aggressively cutting lead times across the network.

Network design solutions from Blue Yonder support a modeling and optimization environment capable of representing the appropriate breadth and depth of today's complex 3PL operations. Blue Yonder delivers the robust modeling paradigm, what-if scenarios,

currency considerations and application flexibility that 3PL providers need to make strategic, fact-based choices about their network design. This evaluation process is easy to repeat as conditions change, creating a powerful advantage over less nimble competitors.

1 Network Design & Optimization

Key Benefits

- **Optimize decisions** by gathering real-time data on production cycles, product handling, lead times and safety stock

- **Improve sustainability** by reducing the carbon footprint

- **Increase flexibility** by creating multi-year strategic or weekly network plans

- **Increase competitiveness** via globalization, digital connectivity and consumer centricity

Solutions

- Network Design
- Transportation Modeling
- Demand Planning
- Sales & Operations Planning
- Inventory Optimization

Real Results

DHL

Achieved 7% savings due to optimization
and reduced in-store inventory by **2-3 days**

"We have to continually evaluate transportation costs, warehouse costs and service levels. These solutions show us the impact in service levels, and transportation and warehouse costs, as well as how we can improve the service levels."

Manager of Global Logistics Processes, DHL

Define Solution Scenarios
- Identify "what if" analysis required
- Determine goals and metrics
- Define the needed changes to the supply network

Define Required IT Data
- Analyze what data is available
- Identify what data is needed for modeling
- Define where and how data will be accessed

Plan and Run the Optimization
- Build models
- Run "what if" scenarios
- Generate reports

Execute
- Rationalize execution results
- Implement (new) scenario
- Build ecosystem to support new logistics solutions

2 Unified Logistics and Execution

In the past, there were very broad delivery ETA windows. Daily operations in distribution centers were reactive and designed for bulk handling. Transportation and warehouse processes lacked visibility and were limited to serial execution, with long planning cycles. Going forward, this environment is no longer sustainable. The rising expectations of customers, driven by e-commerce, must be satisfied by smaller shipments and same/next day delivery — enabled by automated fulfillment, humans plus robotics, seamless workflows, flexible freight networks and tight supplier collaborations, supported by digitization.

Across today's complex, geographically distributed supply chains, how can 3PL providers achieve this level of speed and responsiveness? The solution is to move from a siloed, functional approach to Unified Logistics — where all stakeholders, internal and external, share the same data and objectives. Customer orders, inventory, resources, movement and other tasks are seamlessly planned and optimized across every supply chain node by relying on digitization.

From a public health threat like the pandemic to extreme weather, new regulatory guidelines or other unforeseen supply chain disruptions, a Unified Logistics approach, backed by advanced digital technologies, allows 3PL organizations to anticipate and instantly adapt to changing circumstances.

The three categories of use cases are:

2a. Omni-Channel Fulfillment digitizes and transforms 3PL fulfillment activities, sensing and responding autonomously to changing conditions across channels.

2b. Warehouse Management connects inventory management and fulfillment activities with both upstream demand-facing data and downstream transportation insights.

2c. Transportation Management gathers real-time data on demand and supply, weighs cost and service trade-offs, and autonomously makes optimal transportation network decisions.
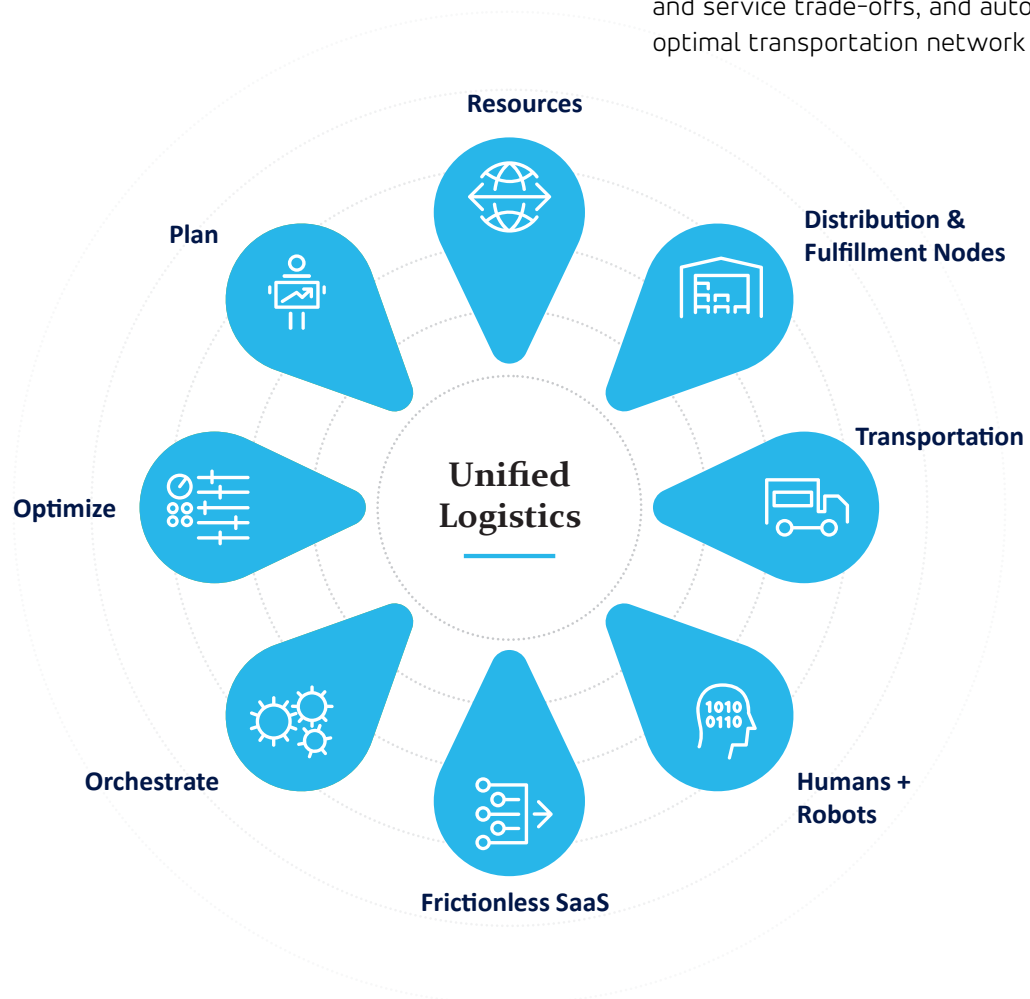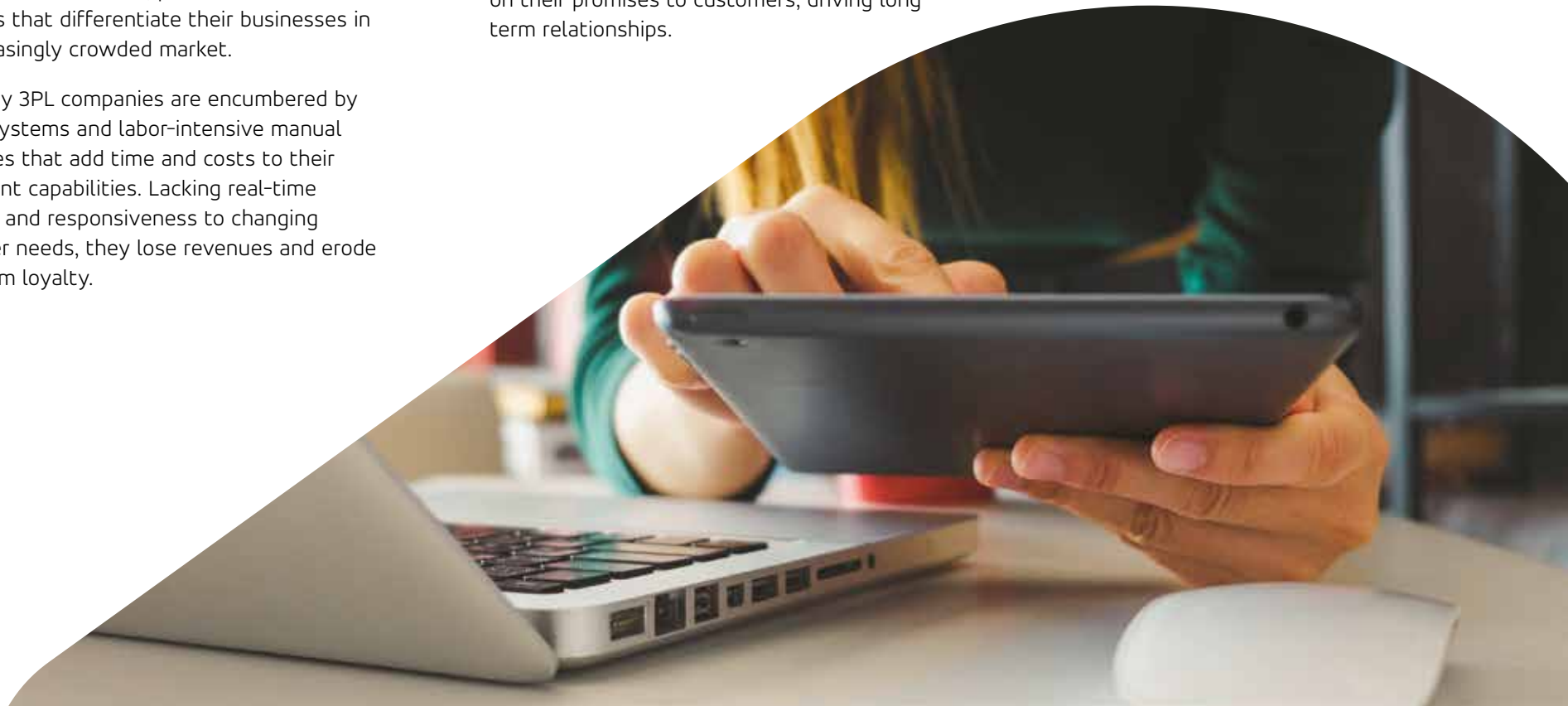
2a Omni-Channel Fulfillment

Consumers were already shifting to e-commerce models before the COVID-19 pandemic dramatically accelerated this trend. Now the "Amazon effect" has made it incumbent for retailers and manufacturers to offer low-cost, same-day or next-day delivery — creating an urgent challenge for 3PL providers.

Third-party logistics companies need to streamline and accelerate every fulfillment process, reducing the time and cost of serving customers across all channels. They also need to explore new flexible, personalized service offerings that differentiate their businesses in an increasingly crowded market.

Too many 3PL companies are encumbered by legacy systems and labor-intensive manual processes that add time and costs to their fulfillment capabilities. Lacking real-time visibility and responsiveness to changing customer needs, they lose revenues and erode long-term loyalty.

Omni-channel fulfillment solutions from Blue Yonder are designed to digitize and transform 3PL fulfillment activities. By creating a digital thread that connects demand with supply, Blue Yonder's advanced technology enables 3PL providers to sense and respond autonomously to changing conditions across channels. Accurate AI-based order optimization enables profitable order promising and fulfillment, while real-time inventory availability minimizes out-of-stocks. Backed by Blue Yonder, 3PL companies can help their retail and manufacturer customers deliver on their promises to customers, driving long-term relationships.

2a Omni-Channel Fulfillment

Key Benefits

- **Deliver accurate and reliable inventory commitments** across channels in real-time

- **Increase revenue** by delivering accurate in-stock/out-of-stock, shop my local store, and product quantity data

- **Deliver personalized experiences** based on customer preferences

- **Optimize the cost to fulfill,** considering location, cost of merchandise, product selection, profitability, transportation and supply chain costs

Solutions

- Inventory & Order Management
- Transportation Management
- Warehouse Management
- Labor Management

Real Results

petco

5% gains in e-commerce

revenues and new customers

"Petco is able to provide customers with the option to view available inventory online, purchase products from nearby stores and pick them up that same day. Having a 'single source of truth' for our shoppers quickly drove a greater than 5% increase in online revenue and the number of net new customers."

Chief Information Officer, Petco

Order Creation
- View inventory availability
- Optimize orders and fulfillment
- Receive orders
- Reconcile inventory across the network

Order Confirmation and Sourcing
- Confirm to purchaser
- Pass order to warehouse

Transportation Planning
- Plan iteratively and dynamically
- Optimize throughput with constraint awareness
- Consolidate shipments

Warehouse Management
- Predict resources and allocate
- Pick, pack, ship

Shipment Tracking
- Locate exceptions
- Alert customers

2b Warehouse Management

The global shift to e-commerce and omni-channel has dramatically affected the world's warehouses. Third-party logistics providers are no exception. 3PL warehouse operations are experiencing new levels of complexity, as well as significantly higher performance expectations.

Many 3PL warehouses are hampered by a lack of connectivity, real-time visibility and direct synchronization with other key functions such as transportation. The result? Order fulfillment delays, out-of-stocks, frequent inventory movements and high expediting costs.

Blue Yonder's warehouse management solution is the industry standard for optimizing the complex, fast-paced operations of today's 3PL distribution centers. With real-time visibility into demand, this solution ensures that inventory and labor resources are optimally positioned to meet customer needs, at a minimal investment of time and cost. Blue Yonder warehouse management utilizes AI and automation to make fact-based decisions on the fly, in real-time, to keep pace with omni-channel demand shifts.

Blue Yonder connects inventory management and fulfillment activities in the warehouse with both upstream, demand-facing data and downstream transportation insights, in real-time. Wherever a change or disruption occurs, the warehouse can react optimally to hit service targets, while also controlling costs to protect profit margins.

2b Warehouse Management

Key Benefits

- **Reduce cost-to-serve** with Unified Logistics optimization across warehouse, warehouse labor and transportation

- **Gain end-to-end visibility** to support fast, fact-based decisions and deliver responsiveness

- **Grow revenue** with accurate inventory, for fewer substitutions and out-of-stocks

- **Deliver personalized experiences** based on customer preferences

Solutions

- Warehouse Management
- Labor Management
- Transportation Management
- Inventory & Order Management

Real Results

CJ LOGISTICS

20% reduction

in variable labor costs

"We had a whole matrix to rank all the vendors, and Blue Yonder rose to the top. The biggest key that we saw was the software itself, because we knew that we could maintain, and manage, and grow a relationship. But if the software doesn't do what we need it to do, that's a big show-stopper."

Senior Director, Industrial Engineering & Continual Improvement, DSC Logistics (now CJ Logistics)

Order Creation
- Receive orders
- Reconcile inventory across the network

Order Confirmation and Execution
- Confirm to purchaser
- Pass order to warehouse

Transportation Planning
- Plan iteratively and dynamically
- Optimize throughput with constraint awareness
- Consolidate shipments

Warehouse Management
- Predict resources and allocate
- Pick, pack, ship

Shipment Tracking
- Locate exceptions
- Alert customers

2c Transportation Management

The 3PL transportation function is under extreme pressure to match skyrocketing demand levels and service expectations with available capacity. Driver and truck shortages have resulted in a demand-supply imbalance that is eroding both profit margins and customer loyalty for third-party logistics providers. Empty miles and other operational inefficiencies must be eliminated in order to control costs and meet sustainability targets.

As 3PL transportation operations struggle to manage demand and supply volatility, often customer promises are made manually, with no factual basis to support them. As a result, either promises are broken or the cost-to-serve becomes too high to support profitability.

The industry-standard solution, Blue Yonder transportation management is purpose-built to gather real-time data on demand and supply, weigh cost and service trade-offs, and autonomously make optimal decisions.

Blue Yonder's predictive modeling and integrated analytics ensure that outcomes are determined in advance, and important considerations such as sustainability are also considered. As conditions shift, Blue Yonder's optimization engines conduct iterative analysis to keep transportation plans on track. Blue Yonder also optimizes daily tasks such as freight bidding and procurement, routing and asset utilization.

The daily transportation challenge can seem overwhelming for 3PL providers, but Blue Yonder enables the creation of a tightly linked, digitally connected ecosystem. 3PL companies can automate many everyday activities and instead focus on broader problems such as network resilience, productivity and long-term financial results.

2c Transportation Management

Key Benefits

- **Gain end-to-end traceability** for secure, safe handling and delivery

- **Achieve in-transit visibility** for optimizing decisions in real-time

- **Leverage advanced routing and load building** to reduce the cost-to-serve

- **Reduce lead times** with Unified Logistics optimization in transportation, labor and warehousing

Solutions

- Transportation Management
- Transportation Modeling
- Load Building
- Warehouse Management
- Workforce Management

Real Results

BAYER

4% reduction
in cost-to-serve

7% improvement
in asset utilization

3% increase
in service levels

"As the transportation and logistics industry continues to transform, in tandem with sales volume growth in certain regions, we need to make sure we are supporting that growth with improved responsiveness, while remaining efficient. By integrating Blue Yonder's transportation management with track and trace capabilities, our ability to serve our customers improved through the increased visibility into our transportation decisions."

Global Logistics Lead, Bayer

Order Creation
- Receive orders
- Reconcile inventory across the network

Order Confirmation and Execution
- Confirm to purchaser
- Pass order to warehouse

Transportation Planning
- Plan iteratively and dynamically
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- Consolidate shipments

Warehouse Management
- Predict resources and allocate
- Pick, Pack, Ship

Shipment Tracking
- Locate exceptions
- Alert customers

3 Intra-DC Digitization

Distribution centers (DCs) are at the heart of third-party logistics operation. But today 3PL providers are challenged to manage these assets to their fullest potential. Labor shortages, low employee retention rates and high rates of turnover make it difficult to meet operational needs, especially in the face of rising service expectations and unpredictable demand.

3PL managers struggle to manage daily DC operations, let alone optimize cost-to-serve, ensure asset utilization, support sustainability and protect profit margins. Yet these priorities are critical to achieving long-term strategic objectives and financial results.

Blue Yonder can help, by providing intra-DC digitization capabilities that enable real-time visibility, connect diverse functions, automate activities such as labor scheduling, maximize asset utilization and illuminate the trade-offs that are made every day in serving customer demand. With Blue Yonder, DC operations can be optimized for profitability, sustainability, innovation, agility and resilience automatically, via advanced technology.

Blue Yonder also helps 3PL providers explore the use of robotics and warehouse automation to counter labor shortages, freeing employees for more strategic work. Blue Yonder solutions calculate optimal throughput rates and lead times throughout the DC, then create schedules and accountability for employees. Blue Yonder solutions increase employee retention by responding to their scheduling preferences, as well as improving productivity by matching tasks with the right associate skillsets.

3 Intra-DC Digitization

Key Benefits

- **Optimize operations** by integrating labor, machines, robots and automation within a single, connected platform

- **Enable workforce planning and labor management** to increase retention and meet business objectives

- **Improve labor conditions** and minimize strenuous work via automation

- **Increase engagement** to reduce turnover and maximize utilization of DC assets

- **Maximize margins** via cost control and productivity improvement

Solutions

- Warehouse Labor Management
- Workforce Management
- Load Building
- Robotics Hub

Real Results

americold

5-10% reduction
in labor costs

"Investment in innovation gives us the ability to adapt to the changing marketplace and our customers' ever-changing needs. Operating more efficiently is core to our mission of being a global provider through innovation, experience and people, goals that can only be achieved if the right technology is in place."

President & CEO, Americold Logistics

Order Creation
- Receive orders
- Reconcile inventory across the network

Order Confirmation and Execution
- Pass order to warehouse
- Select fulfillment location
- Allocate Inventory to order

Task Creation
- Check inventory condition
- Check available resources
- Create task in fulfillment location
- Check load balancing

Resource Orchestration
- Select available execution resources
- Schedule labor
- Plan, prioritize task
- Pass task to control system

Task Execution
- Continuously optimize priorities
- Execute task
- Complete task

4 Real-Time Visibility & Orchestration

As 3PL operations have grown in scope and complexity, it's easy to lose sight of what's happening at every point in the supply chain. The rise of automation and cloud-based technologies has created a huge digital ecosystem, capable of gathering enormous volumes of data in real-time. Yet, too often, advanced technologies are disconnected — and data isn't applied to everyday decision-making.

In today's unpredictable and fast-moving logistics landscape, 3PL providers need to integrate their technology assets, use them to gain real-time visibility and orchestrate their operations based on those insights. In other words, 3PL companies need to manage what they don't see and plan for what they don't know.

That might seem impossible, but Blue Yonder's Luminate Control Tower is a solution-agnostic capability that provides end-to-end visibility across 3PL functions and trading partners, enabling collaboration and AI-enabled orchestration. Luminate Control Tower supports a reliable, always-on, multi-channel ecosystem in which 3PL providers can seamlessly onboard and connect with an extended network of shippers and carriers.

Lacking visibility, 3PL companies fail to recognize disruptions, make un-informed trade-offs and fail to gain a full return on their diverse technology investments. Blue Yonder helps 3PL providers unite their technology investments to gain a new degree of visibility and control over daily operations.

4 Real-Time Visibility & Orchestration

Key Benefits

- **Empower and engage planners** to be more productive

- **Improve resource utilizatio**n through prioritization of issues and actions

- **Enable control, visibility and accuracy** from suppliers' production all the way through to the end user

- **Support a fast response** from distribution centers and hubs necessary for in-store fulfillment services

Solutions

- Luminate Control Tower
- Transportation Management
- Warehouse Management

Real Results

ARMADA.
There's a better way.

Improved visibility and orchestration

Greater efficiency

Increased sustainability

"Armada selected Blue Yonder Luminate Control Tower to make proper supply chain decisions in real-time using information from the entire supply chain ecosystem."

President & COO, Armada

Supply Chain Monitoring
- Monitor supply chain/ network performance
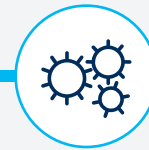- Monitor network to detect supply chain events/ disruptions

Alerting
- Shipment disruption
- Production disruption
- Fulfillment disruption
- Stock-out

Insights & Collaboration
- Monitor internal and customer impacts
- Ensure inventory coverage
- Collaborate internally and externally
- Orchestrate joint resolutions

Resolution
- Rebalance inventory
- Expedite shipment
- Re-allocate supply
- Develop resilience
- Redesign supply chain (segments)

There's a reason why 12 of the top 15 third-party logistics providers run on Blue Yonder.

No other technology partner understands the challenges of the third-party logistics industry like Blue Yonder. With a comprehensive suite of solutions, enabled by artificial intelligence, Blue Yonder supports 3PL providers in gathering real-time data, applying advanced analytics, and autonomously making decisions that balance cost and customer-service outcomes.

While the rapid growth of e-commerce is transforming the logistics landscape today, forcing 3PL companies to reimagine their operations, other forces will come into play tomorrow. Whatever new challenges the future brings, Blue Yonder can help 3PL providers master them via advanced technology.

Blue Yonder Solves Impactful & High-Value Unified Logistics and 3PL Execution Challenges

Challenges

Take operations to new levels of sophistication and performance	Reduce cost-to-serve	Accelerate fulfillment, while cutting costs	Synchronize warehousing and transportation	Achieve real-time visibility

Blue Yonder Business Impact

Improve on-time delivery rates by up to 15 points	Reduce operational costs by up to 5%	Achieve cash-to-serve savings of up to 15%	Increase resilience against disruptions	Increase competitiveness

BlueYonder

Fulfill your potential™