



Distribution and Logistics Redefined:

Responding to Digital Disruption

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The supply chain is accelerating fast. Are you keeping up?

Manufacturing and retail transformations, technology disruptions and digitalization of data have redefined the roles of distributors and third-party logistics providers (3PLs). The rate of change is accelerating, driving the transformational initiatives of distributors and 3PLs to stay relevant, create differentiation and execute long-term growth strategies. It's not just about the change or the expansion of services any longer, but about how fast and flexible their services can be delivered as the manufacturing and retail industries are reinventing themselves. Additionally, technology, artificial intelligence (AI), machine-learning (ML) and the tightening workforce are now front and center on the CEO agenda.

With the rate of change accelerating, is your organization:

- Ready to tackle the accelerating disruption of unified commerce?
- Taking advantage of innovative technology and progressive best practices?
- Monetizing your supply chain data to grow your business and market share?

This white paper provides guidance to the disruptions that are quickly and directly impacting distributors and 3PLs around the world, as well as suggested roadmaps that will help to identify opportunities and navigate changes.

The future state of distribution and logistics

In the future of distribution and logistics, there won't be service providers. Distributors and 3PLs will be seamlessly infused into the overall digital supply chain ecosystem. When manufacturers execute their retail disintermediation strategies to reach millions of customers, or when retailers go all the way to push their unified commerce and when millions of customers expect their personalized, on-demand deliveries, it's the distributors and 3PLs that fill the gaps for the manufacturers and retailers to make sure the customers' expectations are fulfilled. Doing this requires full orchestration of supply chain and logistics at the speed of the internet. Autonomous vehicles, robotic picking, cross-enterprise inventory coordination, RFID-enabled visibility, distributed order management, a blockchain platform for transaction and security, and other Internet of Things (IoT) capabilities will be crucial to achieve the future state.



The size of the prize is too big to ignore. There is \$6.6 trillion of value at stake in the distribution and logistics industry (source: Blue Yonder value engineering). Leading distributors and 3PLs will capitalize on the disruptions to reap these opportunities. For many of today's distributors and 3PLs, internalizing these forces of change will be a shock to the system. A considerable number will become obsolete, making way for the innovators that will enter the market prepared to act quickly and decisively, and most importantly, prepared to think big. In fact, the scale and pace of these coming changes is going to make most of the companies in these industries unrecognizable in a matter of five years or less.

Leading distributors and 3PLs will continue to make headlines and redefine their value propositions, including companies such as Maersk, who is partnering with IBM to exploit blockchain technology; or RS Components, which provides next-day shipments for electronic components to engineers and professionals around the world. Others will be absorbed or become obsolete. The entire industry is facing an inflection point. It's growing by size, yet shrinking by number.

Five disruptions shaping digital transformation in distribution and logistics

1 Digital transformations in manufacturing and retail

Digitalization is transforming every aspect of business across all industries, particularly impacting distribution and logistics. Healthcare providers expect products, combined with services, to be delivered all the way to the point of care within the hospital, not just to the receiving department. Automotive manufacturers don't want the burden of carrying raw material components, so distributors and logistics providers need to manage and deliver the right components just-in-time for production. As retailers are advancing their unified commerce strategies and offering a myriad of promises to consumers, including same or next-day delivery, free returns and personalization, often distributors and logistics providers deliver supply chain services behind-the-scenes to represent the retailers' brands in the market. As manufacturers and retailers continue to transform their strategies, the next challenge distributors and logistics providers face is that they need to accelerate their ability to deliver their services.

At the BG Strategic Advisors Supply Chain Conference, CEOs agreed that as manufacturers and retailers grow their online channels, logistics providers must become an extension of manufacturing and retail brands and provide personalization, kitting and other value-added services that they can't fulfill profitably and quickly enough on their own.



2 Consumerization of B2B services

The consumer buying experience is transforming the way the B2B buyer experience is evolving. Logistics providers must consider how B2B buyers think about their wants and needs. Buyers today want everything to be visible via mobile app and website, on-demand, next-day delivery, personalized and customized, all at no extra cost. The future of logistics, therefore, isn't just about next day/same day delivery, it's about personalization, options and on-demand as well. Top logistics companies must be able to support these on-demand expectations. According to Gartner, "3PL buyers today want a competitively priced, comprehensive set of services that are consistently integrated and reliably available." Everything in logistics is accelerating, though, which is a challenge all providers face.

For example, a 2018 study by BigCommerce of 525 B2B merchants indicated that 80 percent now accept online orders. And Forrester predicts the B2B ecommerce transactions will grow to \$1.2 trillion by 2021. Therefore, distributors and logistics providers must support this capability for their customers in order to stay relevant.

3 Data is money

Everything today is run by data that's hyperconnected to customers, trucks, warehouses and quality monitoring, just to name a few. Data is an opportunity for distributors and 3PLs to differentiate their value propositions. The ability to gain insight from the data provides real-time visibility, security and efficiency, as well as the opportunity to predict and proactively act on supply chain risks. And the importance of leveraging social media, news, events and weather (SNEW) data is growing. Distributors and 3PLs can strengthen their footing by offering expertise and insights that can help manufacturers and retailers achieve their strategic goals. Data gives distributors and 3PLs the ability to manage the entire supply chain on behalf of the customer, manage their ordering and inventory levels and provide them with insights that will help improve service levels.

Additionally, data science allows distributors and 3PLs to offer strategic value to their customers, such as injecting predictive insights and real-time visibility into their supply chains. This results in a more dynamic supply chain that enables customers to make more active, dynamic decisions that reduce network latency, shorten cycle times and protect profit margins. The ability to offer strategic value from data science helps distributors and 3PLs engage further with their customers and strengthen long-term partnerships.



Furthermore, blockchain technology is causing a big disruption for distributors and 3PLs. Blockchain has the potential to help make the supply chain more efficient, transparent and secure. Blockchain offers the ability to track and trace goods throughout each point of the supply chain, from manufacturing to sales. The technology reduces stock wastage, increases efficiencies and provides companies greater control over their supply chains.

Sample benefits:

- 3 warehouses with 140, 80 and 50 associates = 270 total associates
- Average fully-burdened wage = \$21/hour*
- Each associate works 40 hours/week x 52 weeks/year = \$11.7 million in annual payroll
- A 5 percent increase in productivity = \$590,000 savings per year**

*U.S. Bureau of Statistics

**Blue Yonder value engineering estimate

4 Global workforce crisis

Due to the aging global population, coupled with historically low unemployment rates, workforce shortage is a big concern and one that does not look to improve for some time. According to the Rainer Strack TED Talk, “The Workforce Crisis of 2030 – and how to start solving it now,” most of the top GDP countries will face a critical workforce shortage by 2030, including the United States, United Kingdom, Germany and Japan. The TED Talk highlights the following big workforce shortages: The United States will have a 4 percent surplus in 2030, which will be down from 10 percent in 2020. Additionally, the following countries all face large workforce deficits: Canada (-11 percent), United Kingdom (-1 percent), Germany (-23 percent), Russia (-24 percent), Brazil (-33 percent) and Mexico (-8 percent). There’s a fierce competition for available skills around the world, yet a big workforce shortage.

Distribution and logistics companies have continued to go through tremendous transformations that put even more pressure on the need for a highly flexible and productive workforce. Distributors and logistics companies must be innovative in the way they

retain and attract top talent, while simultaneously improving productivity. Coupled with the influx of millennials and women in the workforce, the economy is shifting to a “gig” workforce approach. This shift requires improved projection of labor needs by skill, and the ability for lower skilled workers to quickly on-board and become productive.

Labor costs often make up about 60 percent of the total variable costs in logistics operations, but are also the ultimate supply chain constraint. Most companies have at least a five percent labor cost reduction opportunity. (source: Blue Yonder value engineering)

5 Infused technology

Drones, AI, autonomous vehicles, machine-learning and robotics are a few of the disruptive technologies that dominate the news today. These technologies have the potential to dramatically reshape best practices within distribution and logistics companies, and can strategically redefine value propositions to their customers. Manufacturers and retailers continue to scrutinize their distribution and logistics partners and expect them to bring technology expertise and leadership to the table. This is no longer an option, it’s an expectation.

In the 2020 Third Party Logistics Study, 94 percent of shippers agreed that IT capabilities are an important element of the 3PL experience. However, only 56 percent indicated they were satisfied with their 3PL’s IT capabilities. Although this “IT gap” has been gradually improving over recent years, the study shows 3PLs have a considerable way to go to match customers’ expectations. Those who are able to narrow this gap will have a competitive advantage.

Logistics providers need to position technology front and center as part of their go-to-market strategy to differentiate their value proposition. Technology impacts the value delivered and improves brand equity. For example, Kenco, a midmarket 3PL, established a dedicated Innovation Lab where they explore a variety of technologies to solve customer problems. Because of their thought-leadership, Kenco is recognized by their customers as a true strategic partner.

Navigating the change

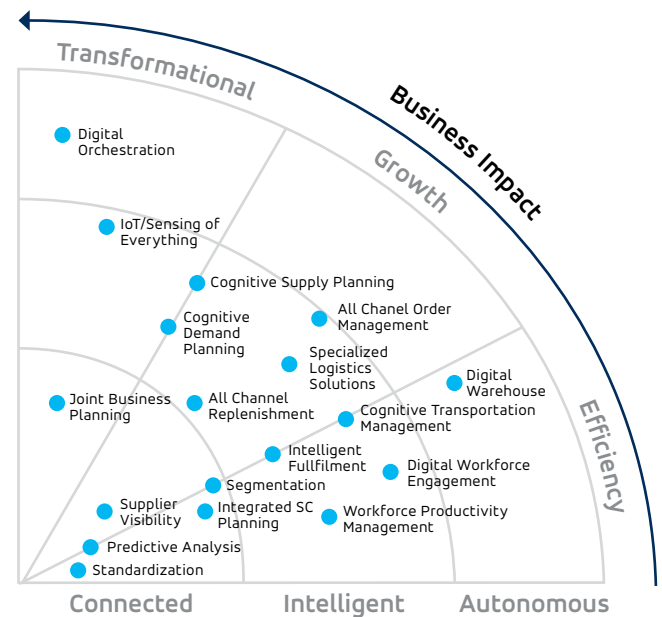
While distributors and 3PLs have used innovative go-to-market strategies over the past several years, most of the industry attention has been zeroed in on manufacturers, retailers and technology providers. However, distributors and 3PLs are often the first to adopt advanced automation, test disruptive technologies such as drones and autonomous vehicles and invest in data research.

Nevertheless, the best performing companies are the ones that have removed the orthodoxies of their former practices. They recognize there is an inflection point where they have to change as their customers are changing and reshape the demand for their services.

Distributors and 3PLs need to redefine their roles, services and value propositions. It all starts with the realization that digital transformation is underway, whether initiated by the distributors and 3PLs or expected by the manufacturers and retailers.

The value matrix below provides guidance for distributors and 3PLs that are navigating relevant transformational opportunities. The best performing distributors and 3PLs are the ones that have developed and executed solid transformational roadmaps. (source: Blue Yonder value engineering). Companies need to chart their path towards digital transformation. One company's roadmap is not the same as another.

Digital Transformation Value Matrix



The first step in a digital transformation is to transition from legacy and disparate solutions to a standardized, digital supply chain platform that can grow and change as industry dynamics change. A digital supply chain platform gives distributors and 3PLs the ability to execute their core competence at maximum productivity, provide end-to-end transparency across internal and external trading partners, and most importantly, accelerate speed-to-market. Beyond the digital supply chain platform, leading distributors and 3PLs leverage data and insights to differentiate their value propositions. Leveraging cognitive and predictive computing capabilities helps manufacturers and retailers navigate uncertainties and risks within their supply chains.

Plotting the Course



Current State



Digital Platform

- Core Competence
- Visibility & Integration
- Speed to Market

Operational Efficiency



Intelligent Response

- Cognitive Computing
- Predictive Actions
- Specialized Services

Differentiation



Autonomous Supply Chain

- Prescriptive
- Self-Learning
- Ecosystem Orchestration

Transformational



Five initiatives that can deliver transformational value today

1 Orchestrating closed-loop distribution and logistics execution

Blue Yonder value engineering assessments have identified that customers taking advantage of constraint-aware and iterative planning workflows between warehousing, transportation and supplier activities can lead to:

- Incremental labor savings of up to 4 percent for dock workers
- Improve cycle time and throughput by as much as 50 percent
- Incremental outbound transportation cost reduction of up to 0.5 percent above and beyond the savings delivered from traditional warehouse and transportation systems

As customer expectations continue to change and order fulfillment becomes more complex, the awareness of bottleneck constraints in the supply chain have become far more critical. Many companies responded by adding assets and working capital to fulfill their promises and maintain service levels. When the entire industry is responding as such, it's draining tremendous value from the supply chain.

A far more effective and efficient approach is embodied in the autonomous supply chain concept which employs the latest advances in digital control tower supply chain visibility, artificial intelligence (AI) and machine-learning (ML) to alert companies to potential or actual disruptions well in advance of deploying inventory, resolve these issues across warehouse and transportation assets simultaneously and digitally collaborate with trading partners to profitably fulfill customer orders. In many cases, the supply chain can self-correct based on analysis of past disruptions and autonomously resolve issues without human intervention.

2 Transforming from a tactical warehouse management system to building a digital business platform

Blue Yonder Real Results

Using Blue Yonder's WMS, Kenco was able to:

- Achieve go-live in just 9 months
- Ship full product volumes within 2 weeks of go-live
- Replace manual picking processes and paperwork with automation and efficiency
- Establish new fulfillment and replenishment rules that supported strategic goals

Using Blue Yonder's WMS, Hellmann Worldwide Logistics was able to:

- Meet increasing customer expectations while reducing costs
- Increase inventory accuracy from 70 percent to over 99 percent
- Optimize customer onboarding time, which is now done in just a few hours
- Achieve economies of scale by enabling teams to work cross-functionally
- Standardize operations across all sites
- Improve billing precision

Using Blue Yonder's WMS, Bradshaw was able to:

- Significantly improve warehouse efficiency during a dramatic growth phase
- Increase ability to handle special customer requests
- Enhance accuracy, visibility and control for daily warehouse activities
- Achieve a 100 percent paperless operation

Warehouse management systems (WMS) have traditionally been the backbone of all distribution and logistics intensive organizations. While the capabilities and value of WMS are well recognized, leading companies have evolved their solutions beyond their traditional value. They've utilized WMS to be the digital business platform to expand their service offerings.

Companies like Kenco leverage the WMS platform to orchestrate value-added services such as kitting, personalization, return management, serialization, unified commerce fulfillment and production management. Additionally, they utilize the data captured, generated and reported from their WMS to predict and plan the business going forward. WMS today is a digital business platform that infuses data and insights from customers, suppliers, SNEW data and IoT to orchestrate the execution of the entire supply chain.

Having a cloud-enabled WMS that operates within the digital ecosystem to effectively create and consume actionable insights is critical. This is especially important as companies consider how to effectively respond to disruptive trends such as warehouse space-sharing, orchestration of robotics and autonomous vehicles within the warehouse, and exchanging data with IoT and blockchain technology, as well as leveraging augmented reality (AR) to assist warehouse workers.



3 Digitally engaging distribution associates to fuel profitable growth

Most distributors and 3PLs face, on average, a 30 percent turnover rate in the workforce. Meanwhile, global workforce availability is tightening, resulting in rising payroll costs and increasing productivity concerns. Based on a Blue Yonder value engineering assessment, companies in this vertical are typically overstaffed by as much as five percent due to the inability to accurately forecast and schedule for labor requirements. This correlates directly to a five percent payroll cost reduction opportunity when labor forecasting and scheduling capabilities are utilized. GEODIS, a global 3PL provider, reduced payroll costs by up to five percent at one of their campuses through launching such an initiative.

Leading organizations have launched a number of CEO-driven initiatives to improve their workforce strategy. Some of these initiatives involve data-driven analytics that help executives and managers to plan their workforce needs with better accuracy, align performance and skills throughout the scheduling process, digitally engage associates in planning and scheduling their work and provide performance feedback and coaching.

By ensuring facilities are appropriately staffed, associates are effectively utilized, best practice processing procedures are implemented and performance is measured, resulting in companies routinely achieving 10 to 15 percent labor cost improvements.

The following framework is leveraged by the companies mentioned above to optimize workforce productivity and digitally engage distribution associates.



Forecast and Planning

- Forecasting and workforce modeling
- Long-range and intra-day planning
- Flexible scheduling



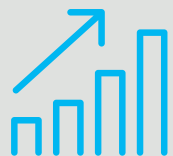
Associate Engagement

- Real-time mobile access to schedules and worked time
- Manage availability and holiday
- Pick up available shifts and request to swap shifts



Visibility & Reporting

- Real-Time visibility
- Performance dashboards & reports
- Trend analysis



Performance Standards

- Pre-defined standard library
- Engineered standards
- Simulation and modeling



Continuous improvement

- Coaching and counselling
- Observation management
- Incentive pay program



Time & Attendance

- Biometric clocking
- Attendance management
- Payroll processing



4 Leveraging the digital ecosystem to predict and act on supply chain risks

Traditional supply chain practices and systems have been built based on assumptions of fixed or average lead times. The supply chain reality often deviates quite significantly from the average lead times. A port strike may delay shipment by two weeks or a traffic jam may cause multiple delayed or canceled deliveries. Closures and shutdowns are often associated with the weather, which may benefit some manufacturers or retailers if they can get their products in the right place at the right time.

Data concerning these events often isn't available in any structured form. The data needs to be extracted and analyzed to be meaningful to the supply chain. The challenge is there are so many sources of digital data available that it's humanly impossible to execute these practices manually.

This is where machine-learning disciplines and predictive analytics technologies combined can make these practices scalable and efficient. With the Blue Yonder digital ecosystem framework, data and machine-learning will be able to infuse insights so that supply chain managers or systems can act in a timely manner in anticipation of specific events.

5 Building supply chain transparency that creates value

Despite advancements in S&OP and collaboration processes, supply chain managers are still challenged to gain accurate visibility of demand and supply across the supply chain. This lack of visibility triggers the creation of buffers that eventually produce a bull-whip effect and reduces total value delivered.

Leading distributors and 3PLs have built competencies to deliver solutions that manage customer' supply chains in addition to traditional distribution and logistics services. Leveraging the flowcasting discipline, a distributor and 3PL for a large fast food restaurant chain is now managing their entire supply chain from ingredient sourcing all the way to the restaurant delivery. The provider also forecasts, replenishes and optimizes inventory for each restaurant location. This competency gives the distributor and 3PL an edge in the market with this fast food restaurant chain. The data also gives them the ability to further innovate and expand their services, such as offering optimization services and continuous improvement initiatives. The fast food restaurant chain has been able to reduce ordering costs, decrease out-of-stocks and reduce inventory at the restaurant-level, making the distributor and 3PL a strategic supply chain partner going forward.

Call to action for distributors and 3PLs

1 **Align with the customer**

Align with the customer to understand their 5 – 10-year strategic plan. If they don't have a well-thought-out and documented plan, use this as an opportunity to engage and increase your value as a partner.

2 **Invest in the right talent to drive sustainable innovation**

Distributors and 3PLs must have internal talent that can perform facilitative leadership. Consider building and/or investing in a dedicated team of experts who will explore potential innovations and jointly build a value-driven roadmap with operations.

3 **Explore innovation opportunities**

Partner with local universities or technology vendors to brainstorm, research and launch proof-of-concepts. This can often jumpstart innovation instead of starting from scratch. Find the right talent and empower them to challenge the status quo. This will give your company a competitive edge they've never had before.

4 **Take self-assessments**

Explore current performance using your company's data to get a baseline and benchmark against others in the industry. Blue Yonder's strategic opportunity assessment is an investment that takes a few weeks and translates the company's vision to operational capabilities, highlighting the gaps, assessing the value of opportunities and building a roadmap for digital transformation.

An outside-in perspective view can also be helpful. Self-assessments, such as Blue Yonder's transportation management self-assessment, warehouse workforce planning and productivity management self-assessment and warehouse management self-assessment can be used to get a personalized benchmark report against best-in-class industry standards.

How Blue Yonder can help

One thing is for certain, and that's change is happening at an accelerating rate. Blue Yonder can provide guidance to the disruptions that are quickly and directly impacting distributors and 3PLs and suggest roadmaps that will help progressive distributors and 3PLs identify opportunities and navigate changes.

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