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Transforming disruption to create

THE FUTURE OF LOGISTICS [TODAY]

FLEET LEASING & MAINTENANCE | DEDICATED TRANSPORTATION | SUPPLY CHAIN SOLUTIONS

Ryder®
Ever better.™

Logistics has gone through an extraordinary change over the past quarter century. It has moved from an operational function that reported to sales or manufacturing to an independent supply chain management function that drives businesses and customer satisfaction. Additionally, disruption is occurring at a more rapid pace than ever before in transportation and logistics.

Macro trends continue to have a heavy influence on the industry. Regulatory pressures for cleaner, more efficient fleets and warehouses, as well as safety regulations, hours of service, and CSA rules are constantly changing, creating more complexity and confusion. Continued growth in rural areas is forcing companies to find new ways to get closer to consumers. Skilled talent is more difficult to find in a time when technicians, truck drivers, and warehouse workers are in short supply and high demand.

At the same time, consumers are driving micro trends across the globe. They are more savvy, less patient, and have near infinite options available to them. Keeping up with their changing preferences has become a struggle for companies as they try to meet the age-old mantra: The customer is king. Two-day delivery of goods is setting a new standard across all industries, as well as raising the level of consumer expectation. Consumers want more individualization and customization of products, which drives the strong growth and constant changes of SKU portfolios.

Through these macro and micro trends, the world is moving from physical to digital, from wasteful to sustainable, from delayed to instantaneous, and from manual to automated. This faster pace of commerce and the disruptions force us to re-think how we do business. And, provides opportunity in disruption. It creates fertile ground for innovation and partnerships that deliver new products, services, and business models to an industry that is in dire need of re-inventing itself to keep pace.

THAT'S WHY, AT RYDER, THE FUTURE OF LOGISTICS IS NOW.

That's why, at Ryder, the future of logistics is now. We help businesses navigate these murky waters of uncertainty with greater visibility and clear solutions that create value. We do this by having the technology, people, and tools in place so supply chains become faster, more granular, and much more accurate. Because of our experience and position as a leader in transportation and logistics, we know what businesses crave in a world that is constantly changing and becoming more digitalized.

Using Consumer Digitalization to Drive Supply Chain Strategy

This economic environment is driven by the millions of connected consumer devices that can sense, measure, order, and alert: smartphones, smart watches, tablets, smart cars, smart appliances, personal lifestyle tracking devices, talking virtual assistants, monitoring devices, among others. According to Gartner, under the roof of the average home in America are two virtual assistants (Echo, Google home), three tablets, two laptops, four smart phones, one smart television, and two smart watches. These devices include applications that provide data that enables companies to understand how to better serve consumers, which products are in demand, where inventory needs to be sourced, and uncover innovative product ideas.

Just as these technologies and devices are changing consumer behaviors, technology is changing the end-to-end supply chain. Organizations have evolved from thinking about a linear path – design, plan, source, manufacture, deliver – to dynamic networks of integrated processes and systems. Information from multiple devices drives the movement of goods from suppliers to consumers. Technologies such as robotics, augmented reality, artificial intelligence, analytics, and cognitive technologies are creating an environment capable of more informed decision making. It's led to strategically locating e-commerce fulfilment hubs so two-day delivery is possible. And, providing value added services for customization such as monograming, engraving, and gift wrapping.

Ryder's strategy to lead the change by forming strategic partnerships and piloting new technology creates customer centric solutions that drive impact. It's how we provide companies visibility to proactively manage exceptions in the movement of goods through the supply chain. And, how we connect multiple people to collaborate in real-time to solve in minutes, what previously took days or weeks to fix.

RYDERSHARE™

RYDERGYDE™

RYDERVIEW™

RYDERDRIVE™

We are doing this with **RyderShare™**, the ultimate open digital platform for real-time visibility of goods moving across the supply chain. The collaborative logistics platform enables the sharing of data with all stakeholders to make decisions and take actions on exceptions in the transit of products. Through its customer-centric approach, RyderShare enables companies to achieve cost savings by reducing redundancies, driving efficiencies, and creating a more predictive supply chain.

For fleets, we we're doing it with **RyderGyde™**, the only app of its kind that allows managers and drivers to easily manage their fleets from one device. This includes ELD data, eDVIRs, fuel receipts, and other once manual paperwork that would take several hours to complete. RyderGyde connects users and their vehicles to modernized Ryder maintenance facilities, enabling technicians to be prepared to service the vehicles when they arrive, minimizing downtime.

Additionally, **Ryder OpsBox™** technology provides a centralized data and analytics platform for distribution and labor management decision making and optimization.

Our leading-edge last mile technology **RyderView™**, gives manufacturers, retailers, consumers, and distributors real-time visibility into the delivery of products, as well as provides capacity management, intelligent routing, carrier tracking, and the ability to self-schedule deliveries.

And, **RyderDrive™** enables communications between truck drivers, managers, and dispatchers, to streamline trip management and automate operations at transportation hubs.

These technologies seamlessly integrate with our best in class warehouse management and transportation management systems. In doing so, it digitizes supply chains by collecting data in one place and combines it with consumer data, so it can be turned into business intelligence and used for predictive analytics and closed-loop planning.
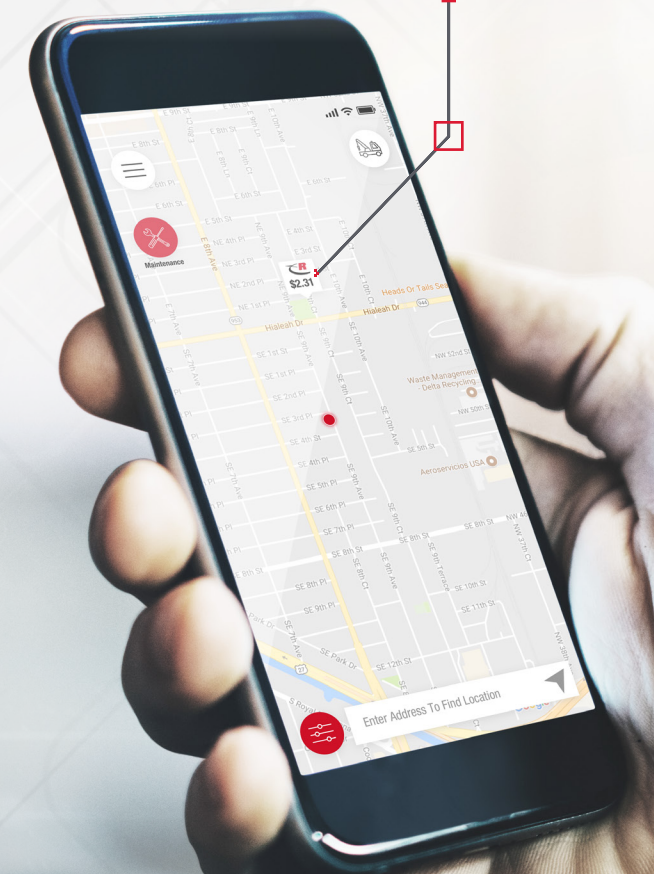
Engineering and Planning the Digital Supply Chain

The future of logistics benefits from the data provided by multiple systems, advanced analytics, and the automation of intelligence. As information is provided through the many different sources, the digital supply chain connects technologies, assets, systems, and locations to enable real-time analysis, smarter decision making, and informed actions inside the supply chain.

The data provides predictive analytics that helps shape new strategies for transportation and logistics. It takes into account all variables inside the supply chain, as well as traffic, weather, and social trends, to create an accurate plan. It also allows for flexibility. For example, instead of creating monthly plans, strategies are set weekly or daily to meet inventory volatility and customer demand.

While this breaks the traditional steps between fixed processes, it opens the door for continuous improvement. It allows for better placement of inventory in warehouses that drives quicker order fulfillment. The data, connectivity, and analytics provides the foundation for automation and smart warehouses.

At Ryder, we've partnered with leading technology companies to prioritize four types of innovative technologies most applicable to creating and supporting an automated smart warehouse: robotics, sensors, wearables, and drones.

Robotics such as autonomous forklifts, tuggers, transporters, and assembly line vehicles provide a safe, efficient, and reliable solution for the movement of goods in a warehouse, while improving productivity, visibility, and customer service levels. Autonomous forklifts significantly reduce travel time, giving employees more time to complete other, more complex tasks. Sensors and identification tools automatically locate and profile supply chain objects to capture and communicate data across the supply chain. These technologies are used for tracking, tracing, security, inventory consolidation, and event management.

Wearable technology gives managers and employees the capability to exchange data between devices and the network. Wearables support core processes such as shipping, receiving, routing, inventory management, picking, and replenishment. Drones have many uses in the smart warehouse including inventory management, facility management and security. Arial drones are used to travel through facilities to map the warehouse and update data on inventory and facility conditions. Manually, this task could take two or more employees and at least one scissor lift to complete.

Outside of the walls of warehouses and distribution centers, advanced vehicle technology that includes everything from in-cab systems to engine and trailer diagnostics, and from electric and hydrogen fuel systems to autonomy is transforming the supply chain. Fleet technology and innovation is being driven by both regulatory mandates and the need for greater visibility and efficiency. The heart of the connected truck is the telematics system that monitors location, speed, hours of service, and data that drives predictive analytics for companies.

Connected trucks have the ability to provide a plethora of data that translates into business intelligence and key predictive analytics with the right people utilizing it. This is where RyderGyde™ and RyderShare™ come in to connect fleet managers to their vehicles, and the vehicles to the supply chain. The data provided can be used to determine the condition of the vehicle, where goods are, how to manage exceptions, and develop new business strategies. The data can tell fleet and supply chain managers location information in real time, what speed the vehicle is traveling, and how long a vehicle has been in a specific position. Fleet managers can also determine if drivers are accelerating erratically or making abrupt stops. Supply chain managers can know if the delivery will be late and how to adjust staffing.

Connectivity extends much beyond the total vehicle to subsystems such as the engine and trailers. This includes fault code elements that trigger check engine lights or service indicators, and temperature control capabilities to keep products fresh and meet FDA regulations. Because of connectivity, data, and analytics, these fault codes can alert fleet managers and drivers to operating conditions that could lead to a breakdown or out of service event, which could cause major downtime for the vehicle.

At Ryder, we are leveraging our relationships with Original Equipment Manufacturers (OEMs) to work with and understand how advanced vehicle technologies fit into a company's portfolio. This includes our Ryder Telematics with Geotab portfolio, in shop maintenance technology, and our exclusive partnership with Aperia to implement the Halo Tire Inflator - an automatic tire inflation solution.

Because cleaner, more efficient vehicles won't be optional going forward, our relationships also include partnerships with manufacturers of advanced fuel vehicles such as electric and hydrogen fuel cells. Through these partnerships Ryder has not only strengthened its leadership in advanced vehicle technology, but also expanded upon the ability to provide customers with the most flexibility, choice, and control for their fleet. The relationships also ensure that integration is looked at through the lens of a fleet operator and not a truck manufacturer.

And, because electrification and charging infrastructure is the biggest barrier for companies to move to an electric fleet, we have partnered with energy companies that provide charging infrastructure for your fleet, and assess power usage through your supply chain to harness your electric grid and save money. Through this partnership we use grid management and power mitigation to charge your fleet. Additionally, best practices for a sustainable building – LED lighting, timers, windows, seals – are then put in place that allow for conserved energy to be utilized by the charging infrastructure. This saves companies millions of dollars from having to negotiate with an energy company and using the public grid to charge an electric fleet.

THE FUTURE IS [NOW]

Having all these pieces in place – technology, data, analytics, warehouse automation, advanced vehicles, and infrastructure – a connected digital supply chain can be adaptive and responsive to the demands of consumers. It gets products to assembly lines quicker and when needed. It strategically maps warehouses and distribution centers for inventory placement, and eliminates waste inside the supply chain. It drives accurate, efficient, and accelerated e-commerce fulfillment and last mile delivery.

The digital supply chain connects everyone involved from suppliers to the consumer. Products can be seen moving through the supply chain, fleets can maximize uptime, and consumers can better predict the delivery of their products they purchased. Companies can meet sustainability regulations, digitize records, and forecast better.

At Ryder, this isn't just the future of logistics. We are doing it today through our E-commerce Fulfillment Solution, Ryder Last Mile, Ryder ChoiceLease and SelectCare Maintenance, our traditional Supply Chain Solutions, Transportation Management and Dedicated Transportation Solution. With our combination of technology, exclusive partnerships, people, processes, engineering, and infrastructure, we are helping companies transform supply chain disruptions and build the digital supply chains needed to drive customer satisfaction and profits.

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About Ryder

Ryder is an $8.4 billion Fortune 500® commercial fleet management, dedicated transportation, and supply chain solutions company. The company's stock (NYSE: R) is a component of the Dow Jones Transportation Average and the S&P MidCap 400® index. Ryder, which provides commercial truck rental, truck leasing, used trucks for sale, and last mile delivery services, has been named among "The World's Most Admired Companies" by Fortune, as well as one of "America's Best Employers" and "America's Best Employers for Women" by Forbes. The company is regularly recognized for its industry-leading practices in third-party logistics, environmentally friendly fleet and supply chain solutions, world-class safety and security programs, and hiring of military veterans. For more information, visit ryder.com , get insights on Ryder Compass at ryder.com/blog, and follow us on Facebook, LinkedIn, and Twitter.

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