

Practical advice for automating a supply chain tech stack

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Times they are indeed a-changin', especially around transport & logistics fleet management. Technology is disrupting the supply chain industry at a rapid pace and has taken many by surprise. During this decade, e-commerce and IoT have irreversibly altered every aspect of fleet management. To remain successful, supply chain managers are increasing their adoption of cloud and SaaS-based platforms and applications.

Innovative technologies, such as blockchain and machine learning, are being implemented today with the potential of significantly reshaping existing supply chain operating models. By 2023, at least **50%**[1] of large global companies will be using AI, advanced analytics and IoT in supply chain operations. That same year, over **30%**[1] of operational warehouse workers will be supplemented, not replaced, by collaborative robots.

[1]source: https://www.gartner.com/smarterwithgartner/gartner-predicts-2019-for-supply-chain-operations/



A new generation of consumers



During this decade, millennials have overtaken the baby boomers as not only the largest generation in the US, but also the largest share of the labor force. According to a Pew Research Center analysis of U.S. Census Bureau data, more than one-in-three American labor force participants (**35%**[2]) are millennials. Set to become the US economy's driving consumer force for many years to come, the generation born roughly between 1980-2000 is currently reshaping the way businesses, and even whole industries, operate.

In 2019 alone, an **estimated 60%**[3] of millennials' purchases were made online, up from 47% two years ago. Retailers are increasingly catering to this new target group and shifting their approach to accommodate the unprecedented demand for a seamless, tech-powered e-commerce experience. Amazon's continued success is proving that millennials aren't as impressed by store brands or prices as much as by the speed, cost and convenience of delivery. In order to meet the demands of this growing group of consumers with significant spending power, the supply chain industry has to adapt to meet their buying behavior.

[2]source: https://www.pewresearch.org/fact-tank/2018/04/11/millennials-largest-generation-us-labor-force/
[3]source: https://www.digitalcommerce360.com/2019/03/26/millennials-online-shopping/

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A tech-powered competitive edge



In order to meet the demands of millennials for fast, convenient and transparent e-commerce deliveries, supply chain managers are increasingly leveraging location intelligence and location data to raise visibility throughout their whole logistics process and to optimize their delivery routes. Real-time location tracking and real-time traffic updates are proving to be crucial for matching the one-day delivery expectations set by Amazon. Such technology allows retailers and logistics companies to seamlessly and reliably share data back and forth, to meet ETAs and improve the customer experience.

As supply chain technology stacks become more complex, diverse and defined by legacy system integrations, Application Program Interfaces (APIs) are becoming essential to making stacks scale, allowing supply chain managers to better meet the demands of the new generation of consumers. Legacy chain management systems from decades past are giving way to cloud-based platforms that are API-enabled. Innovative location APIs that provide supply chain stacks and applications with greater agility, contextual intelligence, real-time data implementation, speed and scale are turning the process of moving goods from A to B into a well-orchestrated exercise in precision. Real-time, data-driven decision making, improved driver efficiency, optimized fleet performance, increased supply chain visibility, precise vehicle tracking, lower operational and insurance costs are just some of the benefits of implementing the right technology stack.

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Integrating new technology



Introducing new technology into an organization can be daunting, particularly if it disrupts everyday practices or decommissions tools that employees are comfortable with. Tech-savvy supply chain managers, who want to avoid common missteps like employee pushback or loss of service when integrating new technology, may find the following tips helpful.

1. Collaborate with IT, but lead the charge

While IT managers are the ones who will carry out the tech stack integration, it is the supply chain manager who should own the implementation process. Asking IT to manage the process from start to finish might seem like the easier and cleaner approach, but supply chain managers should be involved in the process to ensure applications and APIs are being utilized to fully meet their needs. With any new technology or application, it is imperative the user needs are taken into consideration during the initiation in order to take advantage of the full range of functionality.

2. Provide education and training

Any successful technological implementation requires employee buy-in, so they understand why it is required, what it does, how it works and the impact it will have on their job. Employee resistance to change is the most common factor in failed business transformations. To avoid this conflict, supply chain managers are advised to embrace transparency and keep an 'open-door' policy. Holding regular training sessions and encouraging questions is essential for addressing concerns in a timely manner. All relevant staff members should be included in the training so they can all learn to use the technology – whether it's for driving, daily tasks, reporting or planning. Ensuring everyone understands the new company practices and policies around the technology is crucial.

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3. Stimulate driver buy-in

First and foremost, fleet managers must know exactly what the new and improved tech stack can and can't do before they have they introduce the drivers to its functionalities. Apart from explaining how the system will benefit the company, it is essential to communicate to drivers how the new telematics system will benefit them too, as it can be used to protect drivers against false claims regarding customer disputes, vehicle damage or driving infractions. Additionally, drivers may realize additional daily benefits from a reduction of paperwork done in the field to improved routing to their destination. The improved efficiencies that are realized may allow for an increase in salary or bonus potential.

4. Request feedback

When rolling out new processes, supply chain managers shouldn't forget to ask staff members for continuous feedback. With an open-feedback policy, managers can stay on top of how changes are being received, the impact of the changes on team morale and collect suggestions on how to improve the newly implemented process.

More hands-on managers might prefer to lead a series of formal check-ins well before and after the tech stack implementation. These can be in the form of ongoing, one-on-one conversations between managers and employees, a method of communication that has a proven positive effect on boosting retention and engagement of company employees.

5. Use location data effectively

Many supply chain managers are not really taking advantage of the whole range of capabilities a newly upgraded tech stack has to offer. They should beware that real-time location data has use beyond managing their fleet today, it can also be used to predict future fleet management issues. Predictive algorithms can notify managers of potential disruptions that might occur in the future, so that the necessary re-planning can be carried out without undue impact on operations. Supply chain experts understand that without taking advantage of location intelligence, businesses will find it tricky to understand the dynamics of how products are supplied, and then create and implement optimization strategies.



The importance of data providers

Trying to uncover what you need from a location data provider in order to get the most out of your tech stack can be a challenge. The various services themselves have complexities you may not know matter for the success of your product. There are several key points to consider:

Accuracy

Data accuracy plays an important role in ensuring the precise tracking and routing of fleets and the goods they carry, as well as their timely delivery.

Richness

Data richness should be evaluated through the lens of the desired use case to ensure the coverage of appropriate attributes.

Coverage

Comprehensive map coverage goes beyond geography and quality to now include the coverage of new spaces, like indoor venues.

Freshness

To keep up in an ever-changing environment, it is important location data is fresh and the supporting platform flexible enough to ensure timely data delivery.

Integration

Flexible and easy-to-integrate APIs empower developers and improve existing processes and enable new solutions for your business.

Scale

Business needs change and the location data and services consumed will need to scale appropriately.

Proof points

Evaluation goes beyond the platform. Look beyond the offering to partnerships and industry feedback.

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For more on how technology can transform your fleet operations visit **here.com**.

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