

Palantir Foundry for Supply Chain Resiliency

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Global supply chains are under more stress than ever.

Recent and ongoing geopolitical events have added new disruptions to systems that were already under stress from Covid-19, trade regionalization, labor shortages and more. This added shock means global supply chains will likely continue to face increased volatility for the foreseeable future. These disruptions impact the operational supply chain with volatile demand, supply, transportation, and production profiles, each changing on a daily or even hourly basis. Simultaneously, prices are rising across categories, from energy and raw materials to labor and finished goods.

Many supply chains are fundamentally unprepared or underprepared to navigate a highly volatile environment. Decisions made in business processes, including long term contracts on the sales or procurement side, large capital investments for production, tight caps on working capital levels, and more are predicated on an assumption of low volatility or certain operating environments. Specifically, ERP, WMS, Logistics and Manufacturing systems are built to perform in steady-state supply chains. When the supply chain becomes fractured these systems quickly become complex, disjointed labyrinths of siloed data which teams have to navigate. This often leads to them falling back on manual or spreadsheet-based processes to understand each disruption on an ad hoc basis as they come in. As the disruptions start to build up, prioritization becomes hard and teams quickly become overwhelmed leading to sub-optimal decisions with costly consequences and frustrated stakeholders.

Traditional Approaches →

Organizations are actively working to mitigate the effects of the current environment through a variety of processes. In many industries, such as automotive, manufacturing, and CPG, entire task forces are being re-assembled with representatives from across the siloed functions. These task forces have to work around the clock to keep operations moving as much as possible. In the auto industry, these types of task forces are likely to persist into the foreseeable future as they manage the semi-conductor crisis. In transportation-heavy industries such as CPG, energy prices and difficulty securing capacity continues to snarl supply chains. Regardless of industry or specific challenge, it's clear that the volatility of running a global business isn't going away. There must be a better way to manage it.

Palantir Foundry for Supply Chains →

Palantir Foundry is a solution used by many of the world's most important institutions to manage their end-to-end supply chains and can be **deployed in hours**. As the operating system for the modern enterprise, Foundry is uniquely suited to optimally run complex supply chains, both in the current environment and in the uncertain future.

In this white paper, we'll introduce how Foundry can be leveraged to help tackle the most pressing challenges presented by ongoing geopolitical crises: supply chain disruptions and inflation. We'll discuss the platform's underlying capabilities in the context of the current environment and then turn towards discussion of how those capabilities can be easily deployed to solve the aforementioned challenges.

Building Smarter Supply Chains

Navigating the current geopolitical environment and its impact on your supply chain requires the ability to build a responsive digital twin of the end-to-end supply chain with the capability to both ascertain novel disruptions in real time, as well as run simulation and scenario analysis to understand and mitigate impact for potential events.

→ Palantir Foundry enables you to begin wielding the power of your data, modeling that end-to-end supply chain into a digital twin within hours. Then, as the situation unfolds, you can rapidly interrogate your digital twin to solve for the most relevant challenges of the day.

STEP 1

Software-Defined Data Integration →

In the current geopolitical environment, time is of the essence to get a handle on and solve the new challenges impacting supply chains. Palantir's software-defined data integration enables organizations to connect and model a semantic layer of their critical operational data to Foundry **within hours**. This automation requires no code to be written, effectively enabling an organization to wield the power of their data from day one.

STEP 2

Ontology →

The Foundry Ontology is a unique data model that helps solve the fundamental challenges associated with siloed data across an organization. The Foundry Ontology ensures that cross-functional task forces assembled to solve for today's geopolitical challenges are empowered to focus on solving the problems before them, not gathering and making sense of disjointed data from siloed data sets. It further ensures that everyone in the room is speaking the same data language.

STEP 3

Simulation →

The challenges associated with supply chain shocks have broad impact, and are often unpredictable. Too often, we only know that a shock is bad, but lack data on severity or how it can be mitigated. Foundry enables operators to simulate a wide range of scenarios proactively to understand the impact of events and establish mitigation options. By running the simulation on top of the enterprise-wide ontology, operators ensure that their decisions are optimal on both a local and global scale.

STEP 4

Operations →

Responding effectively to disruptions is not purely a simulation or analytical exercise, but is fundamentally operational. Foundry's Ontology and simulations can be easily deployed to operational users at the edge of the supply chain. With operational visibility and tooling, users are not only able to make informed decisions, but also they can execute them with ease. Procurement can quickly see the impact of their decisions on end sales. Manufacturing can mitigate inflation by choosing the BOM with lowest input costs. Seamlessly closing the loop with operations is the ultimate key to success in a volatile environment.

Use Case: Operational Supply Chain Resilience

Today, Foundry is used extensively by organizations across industries to navigate challenges of the current environment. But what does impact look like in reality when leveraging Foundry across an enterprise value chain? Here, we present a few solutions that can be built and deployed within days to navigate the current environment.



Challenge

The current geo-political disruptions that are impacting global supply chains pose significant risk for most organizations. For many, the specifics of this risk are difficult to predict. Answering questions such as “which raw materials might I not receive?” or “which customers may cancel orders?” would require not only advanced modeling capabilities, but also an up to date responsive snapshot of the current state of the business. The knock-on effects are even more difficult to parse, such as - “how will a missed raw material delivery impact my downstream sales ability?” Chaining these questions together and proactively asking them is the key to understanding impact in a timely manner.

To further complicate matters, this ever complex situation can change daily, so organizations need to be able to ask and answer these questions in real time, then resolve identified issues in a business-optimal matter.

Solution

In Palantir Foundry, a digital twin of your global supply chain is at your fingertips, ready to help you solve your most critical operational challenges. Supply chain experts can see the impact of given disruptions and the solutions available to resolve them at the click of a button. Whether that means allocating raw material to the most critical sales orders or re-distributing production across the network due to a plant shutdown, users can resolve issues in minutes - confident that they’ve done so in a business optimal manner. Moreover, these solutions can be pushed to the edge of an organization, so people who previously would have been unable to solve a given problem, can now do so with the full confidence that they’re doing so properly.

Use Case: Volatile Raw Material Pricing and Inflation Cockpit



Challenge

Current geo-political events have exacerbated inflation fears that were already setting in on the back of easing pandemic restrictions. With inflation likely to sit at elevated levels for the foreseeable future, organizations are left with the critical task of understanding how it affects their business and responding accordingly. Manufacturers are seeing raw material prices increase on the inbound side of the supply chain. In order to protect margins, organizations are starting to think about raising prices, yet most don't have the ability to understand at a granular level how much each unit of finished good costs to produce. This is because costs are calculated in silos that do not lend themselves to effectively calculating the cost of production for an individual SKU or item.

This is further exacerbated by the reality that it can take a long time for costs to actually propagate through a supply chain. As a result, when taking price increases on finished products, companies often do so in a blunt-instrument approach across a whole range of products without granularly thinking about each SKU separately.

Solution

In Palantir Foundry, users can quickly and easily allocate costs from large aggregations, such as warehousing costs or labor costs, down to the individual SKU and item level. This enables operators to quickly understand the exact cost of goods sold for each item in the network, as well as how each individual step from manufacturing to transportation, affected said cost. This granular understanding enables operators to deeply understand exactly how inflation impacts margin for each and every SKU. Taken in conjunction with understanding of existing market share, elasticity of demand, and so on, operators can make finely tuned decisions on pricing and contracting to protect margin without sacrificing future market share.

Conclusion

As the operating system for the modern enterprise, Palantir Foundry is uniquely suited to solving the challenges posed by the current environment and preparing for tomorrow's uncertainty. To comprehensively optimize and operationalize your supply chain operations, it's time to reassess and reach across the entire system to collect diversified signal, refine global strategy, and make difficult decisions regarding prioritization and trade-offs. Palantir is positioned to be a partner that can bring that vision to life - let's build a solid foundation, together.

