TADANOW

BEYOND DATA

How a Fortune 500 Automotive Manufacturer Transformed its Supply Chain using a Digital Twin-enabled Supply Chain Control Tower

Executive Summary

Supply chain plays a crucial role for this Fortune 500 automotive manufacturer. With the onset of COVID-19 in 2020 and consequently demand and supply fluctuations in the subsequent years, many manufacturers, including this one, saw significant stress on their global supply chains.

This Fortune 500 manufacturer had limited visibility outside the four walls of its factories due to labor shortages, supplier facility shutdowns and transportation delays. They needed a solution to help them understand their lack of material availability and which plants and production lines were at risk of shutting down their production and take corrective actions to mitigate that risk.

Customer Challenges

1. **Lack of Visibility to Global Suppliers**

    Like other global manufacturers, this Fortune 500 automotive manufacturer has suppliers across the globe. Many of these suppliers were affected due to COVID-19 and its aftereffects. Without real-time data visibility and synchronization, this automotive manufacturer had little insight into where problems were occurring in their supply chain and how to adjust their supply chain planning to accommodate sudden changes.

2. **Multiple Systems and Data Dispersed Across 100+ Data Sources**

    They have different information systems for managing demand, supply, and distribution like all other large enterprises. Many of these systems are exceptionally good at the functional silos they are designed for, but these systems did not connect across the supply chain to provide real-time and actionable insights. As a result, the teams were using manual spreadsheets and BI tools to gain visibility. By the time the information was compiled, their supply chain planners were making decisions off obsolete, outdated data, which proved ineffective and inefficient and could not be scaled to handle disruption from multiple parts of the globe.

3. **No Centralized Collaboration Tool**

    Planners, buyers, executives, suppliers and their extended supply chain teams did not have a centralized collaboration tool. Thus, their supply chain planning was reactive instead of proactive. They spent most of their day on back-to-back phone calls and emails with suppliers and their own team members to understand their risk at a part level rather than taking corrective actions to improve their supply chain.

4. **Limited Time to Create Solution**

    Time was of the essence, and this automotive manufacturer needed to find a solution quickly. They did not have time to embark on a multi-year project to make this transition.

> "In undertaking major digital transformation projects, you need to select a partner that is nimble, agile and has both digital fabric and digital twin technologies that will help us scale. We selected TadaNow to be that partner and they helped us do the transformation in weeks rather than years."
>
> *- Chief Procurement Officer, F500 Automotive Manufacturer*

Benefits

40-60%
Expedites Reduction

10-15X
Demand Visibility

30-40%
Production Improvement

80%
POA Reduction

20%
Inventory Reduction

Digitally Transforming Supply Chains:
TadaNow's Supply Chain Control Tower

Digital Duplicate® — **Alerts & Notifications** — **Advanced Analytics**

18-20 Weeks

PO/ EDI Acknowledgment	Plant Material Availability	Multi-tier Collaboration	Inventory Collaboration	Capacity Management	Executive Metrics	Corrective Actions

China 30 suppliers | **1500** Global Suppliers | **7** Capabilities | **100+** Data Sets | **1100** Data Fields | **3500** Global Users

Personas

Buyers | Planners | Supply Chain Managers | Operations | Suppliers | Executives

TadaNow helped this automotive manufacturer move from reactive to proactive planning and risk management and created real-time visibility and collaboration across their end-to-end supply chain.
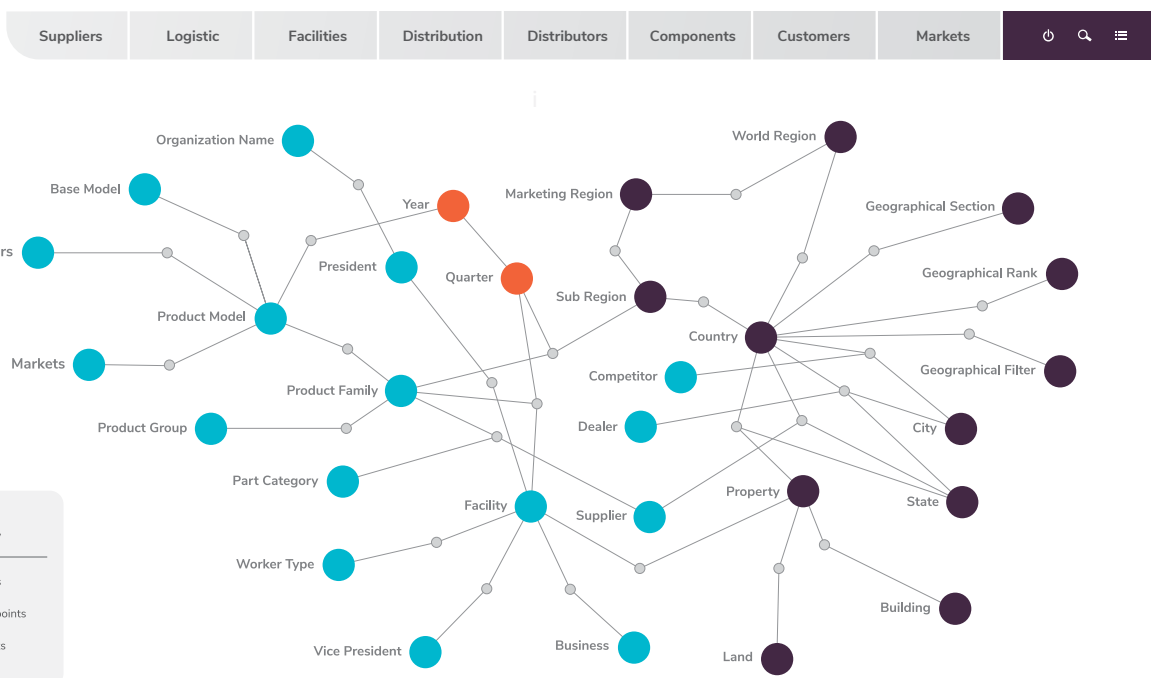
Our process starts by working with customers' supply chain teams to understand their current system. This discovery exercise identifies gaps, use cases and needed capabilities that will enhance supply chain performance.

Following the use case analysis, **TadaNow uses its proven 3-step process to enable this transformation.**

STEP 1
Build

The first step in the process is to build a Digital Twin of the Organization using TadaNow's patented Digital Duplicate® technology. This process entails creating a digital twin of every process, product, part, plant, persona and supplier, connecting them in a network that replicates the model of the automotive manufacturer's organization.

TADA NOW

Suppliers | Logistic | Facilities | Distribution | Distributors | Components | Customers | Markets

Network View

- Geo based data points
- Business based data points
- Time based data points

Organization Name, Base Model, Customers, Markets, Product Group, Part Category, Worker Type, Vice President, Product Family, Product Model, President, Year, Quarter, Business, Facility, Supplier, Dealer, Competitor, Sub Region, Marketing Region, World Region, Country, Property, Land, Building, State, City, Geographical Filter, Geographical Rank, Geographical Section

STEP 2

Bind

Just like every other large organization, this manufacturer has its data spread across many systems. The next step in TadaNow's process is to create a Data Fabric that is a self-updating network harmonizing over hundreds of their siloed data systems, including CRM, ERP, and some mainframe data sources. Using its built-in tools for data harmonization, TadaNow was able to cleanse, connect and transform 100+ data sets in less than 12 weeks.
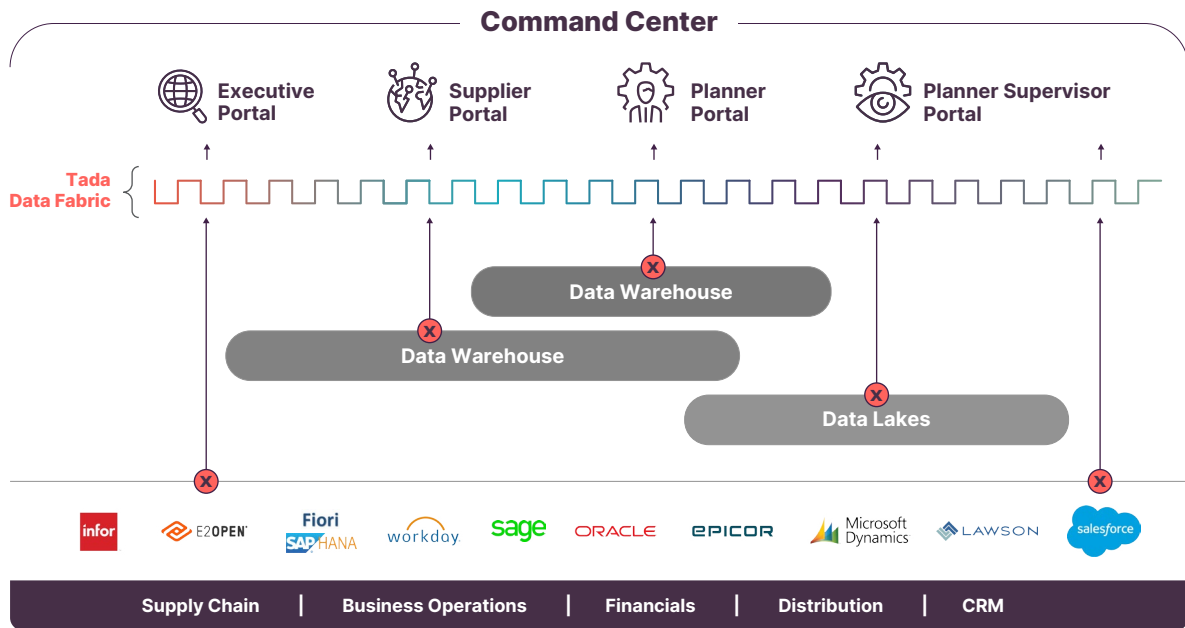

STEP 3

Blast

Next step in our process is to identify all of the personas that need to interact with the system and understand their specific needs. Using our no-code application development environment, TadaNow helps create workbenches for each supply chain persona, including Buyers, Planners, Suppliers, Supply Chain Managers, and Executives. Supply chain personas get their own dashboard, escalation workflow, and collaboration tools needed to create actionable insights and sync planning across the organization.

TadaNow provides a bird's eye view for supply chain executives. They can see a 15-day summary of the company's coverage and how many total parts are not covered.

Using TadaNow's Forms Acknowledgment Feature, suppliers acknowledge demand requests received and provide supplier capacity and inventory information on a daily, weekly or quarterly basis depending on the requirements set by supply chain planners.
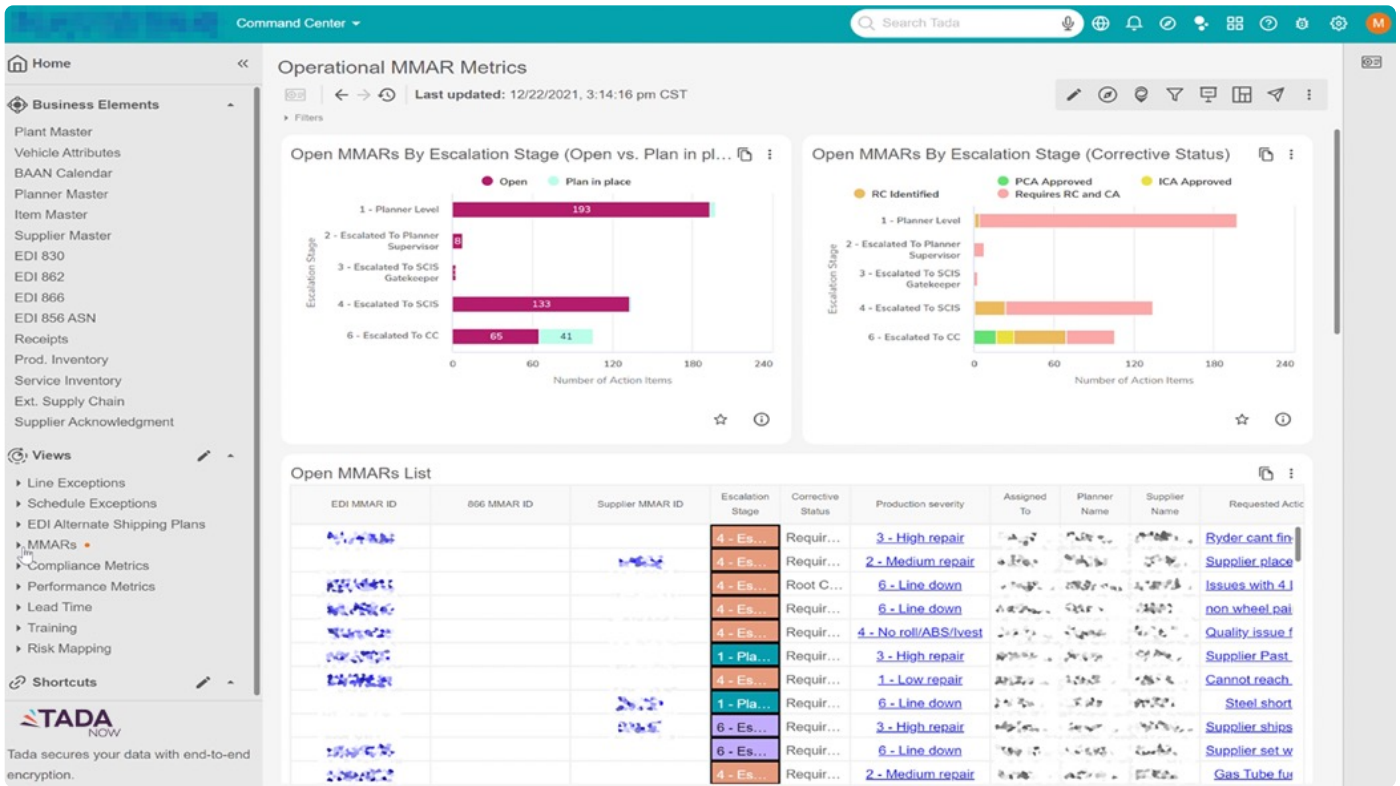
People with enterprise command center access can view the compliance summary of all suppliers, including escalations made by planners.

Agile Development

TadaNow's agile development methodology comprising of 2-week sprints was able to show results in as little as six weeks enabling the automotive manufacturer to understand its plant material availability. Our no-code platform enables fast customization enabling suppliers to acknowledge their parts orders (PO) and Electronic Data Interchange (EDI) data for all internal and external partners.

Thanks to the power of Microsoft Azure Elastic stack and Kubernetes Service, TadaNow is able to scale compute and storage for this automotive manufacturer on-demand. Using Azure AD & Security Center, TadaNow provided enhanced security and personalized workbenches that allow every supply chain role to only see data related to their persona. To ensure real-time updates to the data, TadaNow internally uses Snowflake data storage platform.

Key Capabilities

Seven key capabilities were launched from TadaNow's Supply Chain Control Tower solution:

- **PO Acknowledgment**
- **Plant Material Availability**
- **Multi-tier Collaboration**
- **Inventory Collaboration**
- **Capacity Management**
- **Executive Metrics**
- **Corrective Actions**

Customer Benefits

Instead of 2 days of visibility on parts, suppliers, and production, this automotive manufacturer now has 16 weeks of visibility available to their supply chain Buyers, Planners, and Executives. Through TadaNow's Supply Chain Control Tower, the following results were achieved:

- **40-60% Reduction in Expedites**
- **10-15X Demand Visibility**
- **80%+ Reduction in Purchase Order Acknowledgments**
- **30-40% Production Improvement**
- **20%+ Reduction in Inventory**

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