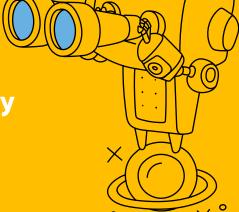
**How Data Fabrics Can Help Prepare Today's Supply Chains for Uncertainty** 

Individual supply chain disruptions can quickly escalate to become global disasters. Disruptions in a single region will often result in delays and risks to international transportation and commerce across the globe.



2007: **Production Delay** 

Numerous supplier issues massively delayed Boeing's 787 Dreamliners 

**M**DERN

Natural Disaster The polar vortex caused

massive delays and power outages ④ 🛱 ⑧

**Production Delay** AstraZeneca and other vaccine makers could not

meet delivery promises ∷ ₀0

**Financial Crisis** European economic instability drove volatile exchange rates

2014:

(S) III

**Cyber Attack** SolarWinds attack took advantage of multiple supply chain layers ⊕ 🖽 🕲 👊



**Production Delay** Disney® failed to produce enough Frozen® tovs at launch

shipments ④ 🖰 💲

Brazilian custom

systems delayed multiple

Increased Costs

Hurricane Katrina knocked out power and transport routes ⊕ 🛱 ③ 📶

Evergreen's ship got stuck in the Suez Canal ⊕ 🖽 🕲 👊

worldwide, affecting every industry ⊕ 🛱 🕲 👊

Lockdown quickly spread

Schedule Delays





Economic Impact



2007



Port Delays



Hurricane Katrina's damage and economic impact totaled



Boeing's 787 Dreamliner relied on over 50 suppliers from

multiple countries. Repeated mishaps and shortages caused over a year in delays and over \$32B.

2013

Disney had to face a myriad of angry fans when its \$1.3B blockbuster did not have enough merch in stock. Disney

2014

and restricted purchases of some items to specific days. 2016

Tasked with hosting over 10,500 athletes from 200 countries and the arrival of over 30M items, Rio faced many challenges

stores had to put two-item limits on every Frozen purchase

including getting housing built in time for the athletes and food delivered on a daily basis.

2020 85% of global supply chains faced a reduction in operations during the COVID-19 pandemic; 6% shut down completely.

2021 While every provider faced some delays, AstraZeneca

told the EU at the start of 2021 that it had to cut vaccine

deliveries by 60% to 31M doses.

Customer

\$250B.

The polar vortex's widespread effects were correlated with the first quarter GDP shrinking by 1%.

During one of the peaks of European economic instability,

28% of companies were affected by currency exchange rate

2014

2020

Remediation of the fallout from the massive breach of SolarWinds network management tools - which affected up to 18,000 organizations - could cost companies billions.

2021 ~12% of global trade, ~1M barrels of oil, and ~8% of liquefied natural gas pass through the canal each day. It's estimated that the Canal's revenues were taking a

\$14M-\$15M hit for each day of the blockage.

## made exponentially worse by poor data strategies that are just as rigid as traditional supply chains. How we used to think about supply chains

Data Fabrics Can Deliver Desperately

**Needed Transformations** 

Traditional supply chains are like siloed nodes in a linear system operating in a relay. When disasters hit one node, entire systems across the globe can crumble. In many cases, part of the collapse is unavoidable but the strain is

**Producer** Customer



How data fabrics help us think about supply chains

**Producer** 



## and then back again, dynamically enriching the fabric.

You can't avoid disaster, but you can prepare with data.

Powerful query capabilities

Data Fabrics are not static. As a

queryable layer, they allow users

to discover insights from otherwise

disconnected data silos. Information

flows from their sources to an output



Find meaning, not just data

Data Fabrics deliver meaning by

With a Data Fabric, people and

programs alike can make better

misinterpretation.

decisions without data misuse or

weaving together data, from multiple

a data model with all context in-tact.

sources in a variety of formats, through

The Time Is Now

China that were most affected early in the global COVID-19 pandemic.

From the COVID-19 pandemic, we learned that better understanding supply chain risks requires visibility into tier 2 and tier 3 suppliers that, while relatively small, can create significant disruptions. This is more relevant than ever as the early shutdowns

**Enriched systems** 

actions.

Data Fabrics weave together existing

data management systems, enriching

virtuous cycle of valuable insight and

all connected apps and creating a

Simultaneously, there's a growing premium on solutions to accelerate or enable agile supply chains that can better handle highly dynamic situations. But it doesn't have to

## **About The Modern Data Company** Founded in 2018, The Modern Data Company® (TMDC) began with the realization that enterprise-wide data access has been siloed.

A wide range of sources was used to compile this data, including Dun & Bradstreet's Business Impact of the Coronavirus, Reuters, BBC News,

data fabric for your enterprise.

be this way.

Data engineers and database administrators have been the longstanding data gatekeepers who funneled data to analysts and data scientists. We aim to change that by freeing enterprises to make better data-driven decisions by democratizing access to data. When all employees, irrespective of their technical skills or background, can easily explore and analyze enterprise data, then both productivity and market expansion are realized at a faster pace.

McKinsey & Company, Data Center Knowledge, MPR News, Seattle Times, DHS, US State Department, UN agencies, and WHO.  $\textbf{hi@tmdc.io} \cdot \textbf{www.TheModernDataCompany.com}$ 

