



## APIS: AN EMERGING PLAYER

Automation, integration, and AI is revolutionizing the way we do business.<sup>1</sup> Firms that don't adapt face dire consequences. Since 2000, 52% of Fortune 500 firm have gone through M&A (Mergers and Acquisitions), bankruptcy, or fallen off the list, many unable to keep pace with digital change.<sup>2</sup> The supply chain industry is no different. An estimated 90% of global supply chains rely on legacy **EDI (Electronic Data Interchange)** systems made over 40 years ago to help firms and communicate with their partners.<sup>3</sup> Disruption is a matter of when, not if.

## BETTER, FASTER, STRONGER

**APIs (Application Program Interfaces)** are poised to replace EDIs. APIs enable fast, efficient supply chains through a layer of connectivity, allowing data to be transmitted from one system to another. This creates a seamless way to view data from a central location and helps procurement officers make informed business decisions.<sup>3</sup> APIs have quickly been adopted by consumer technology. Today, nearly 24% of all web and 15% of all mobile apps use APIs. These figures are expected to jump to 80% by the end of 2018.<sup>4</sup> For many firms, APIs have become a vital tool for business operations and problem solving.

## BENEFITS OVER COST

Despite the benefits of APIs, supply chain has been sluggish in response. Many firms are concerned with the time and money they need to invest. Others have a general feeling of distrust for new tech, or simply don't want to be the first to change.<sup>3</sup> These fears are largely unfounded. Implementing an API is less costly and complex than an EDI, with a turnaround of days rather than months.

APIs are easy-to-deploy web solutions that define a set of rules for programs to communicate with each other, and do not require much maintenance or troubleshooting. **On-demand delivery and omni channel buying puts pressure on supply chains to streamline, going beyond the capabilities of EDIs.** In this environment, supply chains will be driven to make changes just to keep up with demand.<sup>3</sup>

## ELIMINATING SILOS

Perhaps the biggest value-add APIs provide is the ability for business users to access data and assets. They can simply self-serve according to their data needs. Beneath the surface, APIs allow diverse software to talk with each other using standard protocols, specifying which components can interact and what data can be shared.<sup>5</sup> **This way firms can open their backend data to be reused in new programs, without alienating users from nontechnical backgrounds.**

This strategy eliminates information silos and human gatekeepers, increasing the efficiency of a firm's operations. A broader audience now has access to data that is helpful for analytics. IT departments are incentivized to build reusable self-service infrastructure. This culture shift, from viewing IT as a tech provider to a strategic business enabler, is crucial for firms looking to compete in today's world.<sup>6</sup>

## MICROSOFT: A CASE STUDY

Tech giant Microsoft highlights a case study on the benefits of using APIs in supply chain. Microsoft partners with suppliers around the world. Its former supply chain solution required 200 on-premise servers that handled over 3 million transactions per day. Onboarding was

slow and expensive. The system was not scalable and did not provide adequate end-to-end supply chain visibility. To address these problems, Microsoft broke down their large, siloed architecture into modular components, called microservices, and was able to pull out these components using REST-based API (an industry trusted protocol). This streamlined integration, created shorter development cycles, better scalability, and reduced cost. Microsoft's new "plug and play" model reduces the time spent on vendor onboarding from weeks to minutes, and provides a scalable, agile solution with end-to-end supply chain control.<sup>7</sup>

## USE APIs TODAY

To meet the growing expectations of speed, agility, and visibility, firms must leverage modern web services in their supply chains, along with the integrative features they offer. It's recommended that firms buy or subscribe to **SaaS-based (Software-as-a-Service)** platforms, as it's often the most scalable, cost-effective, and easy solution to manage. Third party solutions limit the capital expense required and allow IT departments to focus on internal resources and projects, increasing the firm's flexibility and responsiveness.<sup>3</sup> Although APIs have very clear advantages in supply chain, it's crucial to stay focused on specific objectives and business problems.<sup>7</sup> **By using API systems wisely and fostering a healthy sense of skepticism and common sense, firms can maximize their business value and remain a competitive player in today's market.**

*We support your supply chain needs with robust and integrative vendor management tools. With industry-trusted RESTful API, we further tighten security requirements and embed real-time updates of alerts and information from other programs while you monitor your dashboards. We strive to innovate and improve our products to better serve you for the future.*

### References:

1. World Economic Forum: Digital Disruption Has Only Just Begun [\(link\)](#)
2. Constellation Research: 2014 Digital Outlook [\(link\)](#)
3. Supply & Demand Chain Executive: APIs - Future of Supply Chain Technology [\(link\)](#)
4. SupplyChain 24/7: 10 Best Practices for Thriving in the API World [\(link\)](#)
5. API Academy: API Strategy Lesson 101: What is an API? [\(link\)](#)
6. Tech Crunch: APIs Fuel a Cultural Shift in Business [\(link\)](#)
7. Spend Matters: APIs Opening Machine Learning Markets [\(link\)](#)