The Network Effect

Creating a unified, collaborative, and intelligent business network
Executive Summary

Our vision is to transform today's fragmented supply chains into a unified, collaborative, intelligent network to help our customers confidently adapt to changing market dynamics and future-proof their businesses. As a result, customers can build resilience against global disruptions and maintain the flexibility needed to transform business models, all while doing business as sustainably as possible.

Businesses rely on a global economy that has transformed into a networked economy.

Customers have become increasingly more demanding, forcing many companies to focus on core competencies and tap into a network of partners that can provide complementary business process, services, and capabilities.

Today's enterprise-centric systems, however, restrict network visibility and collaboration. Many companies still rely on paper-based processes and point-to-point methods to connect to their customers, suppliers, manufacturers, distributors, and service providers. These largely linear, one-to-one connections create siloed systems that limit visibility, restrict interaction with data, and reduce collaboration across processes.

Additionally, as consumer demand for ethically sourced products increases, sustainability cannot be an afterthought. Designing, manufacturing, and delivering products in ways that minimize carbon footprint and other environmental impacts requires visibility and collaboration across all trading partners.

And, of course, disruptions such as pandemics, isolationism, trade wars, and environmental issues only amplify network-collaboration challenges.

Connecting an organization’s critical partners through a unified network, on the other hand, breaks down the barriers of siloed systems and opens opportunities for better ways to work together. It enables collaborative processes — smoothly connecting all trading partners — so everyone benefits from enhanced intelligence, greater efficiency, and improved resiliency. A network also overcomes the challenges of disconnected data and fragmented business processes, driving scalability and speed across the global supply chain.
Market Dynamics

Today's global economy presents significant challenges to business leaders:

- **Demanding customers**: Consumers are more informed about their purchasing decisions than ever before. They're always connected and constantly searching for information. They demand that companies instantly fulfill their desires, and they share their brand experiences (good or bad) on social media for all to see.

- **Globalization**: In an effort to satisfy demanding customers with the right products delivered at the right price, supply chains rely on numerous trading partners scattered across the globe.

- **Business volatility**: Companies must constantly adapt to multiple global disruptions, which impact supply chains and customer demand. These range from common events (the weather) to extraordinary events (COVID-19 pandemic) and geopolitical developments (including trade wars and Brexit).

- **Sustainability**: Consumers increasingly prefer and expect purpose-driven companies, products, and brands, and they seek organizations committed to carbon neutrality as well as social and environmental responsibility. Questionable trading partners, therefore, can seriously impact a business, and companies can face intense regulatory scrutiny based on their supply chain, so the need to ensure equitable and sustainable sourcing is critical.
As companies across all industries try to serve their customers better while reducing costs, many have decided to focus on their core competencies, looking to partners to provide complementary business processes, services, and capabilities:

- There's been an increase in contract manufacturers in lower-cost areas.
- We see more supply chains spanning multiple tiers and continents.
- The use of contingent labor is growing to supplement staffing during peak periods.
- There's been greater reliance on logistics service providers to move goods around increasingly complex global supply chains.

While these strategies help keep costs low and offer some flexibility, they also increase complexity, risk, and the need for improved visibility and network-wide collaboration.
A Closer Look at the Challenges of a Networked Economy

Behind the scenes of the networked economy lie reactive and largely siloed attempts to wrangle the complexities of myriad suppliers, producers, distributors, and service providers. Paper-based processes and point-to-point integrations only make things worse — limiting the digitalization of data and processes between trading partners. As a result, businesses are limited in their ability to get the most out of their network strategy while avoiding risks, reducing costs, and increasing visibility.
Example Use Case

Take a look at all the partners and processes a beverage company must manage when orchestrating a complex global ecosystem to deliver a simple drink to the consumer. Without a network, the company:

- **Lacks real-time visibility** into what’s happening with critical suppliers – basing supply chain planning heavily on internal data alone, which limits the ability to dynamically respond to any number of disruptions.
- **Faces day-to-day interruptions**, such as delayed shipments, out-of-stock materials, low capacity of production, or supply shortages.
- **Is exposed to major disruptions** such as a hurricane, critical equipment failure, or trade war that can all have a catastrophic impact on its ability to serve customers and reach its revenue goals.

This is the case for many, if not most, organizations doing business today. Technology doesn’t give them the ability to sense and respond rapidly to disruptions big or small, which exposes them to financial, operational, and regulatory risks. To mitigate these risks, organizations are forced to carry excess inventory and build redundancies into the supply chain that lower the speed and limit the flexibility of their operations. Combined, this creates a major barrier to efficiency.
Our vision is to transform today's fragmented supply chains into a unified, collaborative, and intelligent network.
With our more singular approach, we aim to help companies:

- Connect with a **unified**, global community of partners to drive desired business outcomes.
- Strengthen **collaborative** capabilities to combine the reach and power of the network.
- Use the combined **intelligence** of the network to learn from the past, act in the present, and predict the future.

This can change how companies work with their partners for the better. It can improve everything from how businesses source suppliers and manage supply chain risk to how they work together to design, manufacture, deliver, and support the goods and services the global economy needs.

**And it takes three things to get it done.**
Encourage a Community of Diverse Participants

To be successful, a business network must welcome and connect trading partners and other networks in all their forms:

- **Suppliers** providing direct materials and indirect goods and services to buying organizations.
- **Manufacturers** of components, packaging, or anything else that goes into what a company builds.
- **Distributors** that get what’s built into the hands of customers.
- **Carriers, shippers, and other logistics providers** that bring the raw materials into a company and deliver the resulting products to distributors or customers.
- **Data providers** that augment transactional and operational information with valuable insight and context, further informing evaluations, decisions, and plans.
- **Application developers** whose solutions build on the processes and data in the network to bring new levels of intelligence, automation, and integration to network participants.
- **Assets**, such as machinery on a shop floor or any other piece of equipment, that offer data that can improve workflow and process efficiency and whose performance affects business results.
- **Financial institutions** that deliver flexible working capital, financing, or payment efficiency to network participants.
- **Other existing networks**, such as freight networks, that provide consolidated access to multiple providers (Uber Freight, InstaFreight, and so on) or existing supplier, logistics, asset, or other networks.
Stand on an Open Architecture

To be effective, a network must be able to easily connect to any system, data source, or application from any partner that is connected to it. It must be built with the common data model and APIs to help ensure that integration is never a barrier and that data and processes can flow freely and securely.

When built this way, a network is also open to a broader ecosystem of partners that can provide capabilities and value such as:

- **Data or content providers** that offer additional intelligence into business processes.
- **Catalog providers** that contribute ready-made catalogs of goods available for purchase.
- **Location providers** that calculate delivery points and routes to streamline deliveries.
- **Applications** that add depth and functionality to end-to-end processes – such as digital signatures in the contract process.
- **Financial services** that provide payment, financing, and more at different points in the process.
- **Asset services** that offer master data governance and solutions for effective asset and maintenance management.
The Intelligent Enterprise strategy from SAP helps break down silos between the different functions of an organization to bring incremental value to customers. Customers can become more agile and make better-informed decisions. Automation, business process integration, and innovation bring speed and scale to every part of their businesses.

With SAP Business Network, we build on our Intelligent Enterprise strategy by supporting the extension of end-to-end connected processes beyond the "four walls" of a given organization. In doing so, we facilitate the smooth exchange of data and insights across businesses and geographies to drive greater levels of collaboration and agility. Here’s how we do it.
Create a Business Community of Trading Partners

A network is only as valuable as its scale and reach: the breadth of those who are on it and the diversity of services gained from it. So joining, accessing, and navigating the network must be easy and beneficial for all trading partners.

SAP Business Network provides business-to-business (B2B) connectivity between trading partners, similar to the way LinkedIn or Facebook offers connectivity between personal relationships. It’s a more simple, frictionless way to connect with trading partners online, using:

- **A common trading partner directory**, where businesses can onboard or find existing partners and discover new ones. This means a trading partner needs to be onboarded only once, regardless of the different roles it may play across the network.
- **A single data model and user experience** to enable the exchange of information and insights across businesses and geographies, driving greater levels of collaboration and flexibility.
- **An open network architecture** that connects with existing networks to extend its reach and increase the value to its members. This approach creates extensibility that SAP Business Network needs, enabling companies and partners to build their own capabilities. In addition, it acts as an integration point for third-party content, algorithms, and applications.

As a result, SAP Business Network has grown and can continue to grow because it’s not only intuitive to use, but also appealing to join – providing a “win-win” for all parties. And when a network like this reaches across industries and across functions, customers get the scope and scale it takes to do business better, no matter what type of business they’re in.
When a company, all its trading partners, and all its systems are working together in real time with the same set of data, business can move faster than ever.

SAP Business Network changes what it’s like to work with partners, using network-wide process orchestration to enable:

- **Frictionless, role-based collaboration** that keeps everyone working together across trading partners and business functions.
- **Streamlined processes and workflows** that allow more-secure, but free-flowing, collaboration across businesses and trading partners.
- **Real-time communication** with trading partners, helping them work together to respond to disruptions and prevent the typical bullwhip effect.

It’s a new way of working that increases efficiency while turning disruptions into effective delivery.
Today's businesses generate previously unimaginable amounts of data:

- **Structured data** from millions of transactions that get processed every day, as well as data from smart products and assets linked across the network.
- **Unstructured data**, such as sentiment analysis from customers about their perception of a company or product and their related experiences.
- **Independent, third-party data**, such as supply chain risk, proactive alerts to any changes in risk status, and insight into working with suppliers to mitigate risks to the supply chain and brand.

But this data is worthless unless it is put into the business context and provides the level of detail and format required across the network.

SAP Business Network uses the combined intelligence of the network to help our customers do the following:

- **Learn from past activities** by accessing historical data to identify trends, track KPIs, and benchmark against industry peers.
- **Act on real-time information and insights**, both structured and unstructured, to sense and respond to events as they happen across the network.
- **Predict risks and opportunities** by using the combined knowledge of the network, by using predictive analytics capabilities to identify risks and opportunities, and by recommending strategies to avoid disruptions and maximize opportunities.
Leverage Existing Networks of SAP

Today, SAP has multiple business networks:

- **Ariba® Network** enables buyers and suppliers to collaborate on transactions, strengthen their relationships, and discover new business opportunities. Buyers can manage the entire procurement process from source to pay, while controlling spending, finding new sources of savings, and building a healthy, ethical supply chain. Suppliers can help buyers achieve their procurement transformation goals, while boosting customer satisfaction, simplifying the sales cycle, and improving cash flow.

- **SAP Logistics Business Network** provides a central entry point to manage logistics transactions, exchange documents with key business partners, and gain transparency across the complete value chain. Shippers and carriers can jointly manage logistics transactions and gain insights through an open, more secure, multimodal network.

- **SAP Asset Intelligence Network** maintains a global registry of equipment and assets that can be shared among business partners – such as manufacturers, original equipment manufacturers (OEMs), operators, and service providers – to deliver new collaborative business models. The result is improved operational excellence.

In the future, each of these networks will be part of SAP Business Network.
For everyone from customers and manufacturers to production-line managers waiting for a part to fix a machine, the most common question is: “Where’s my order?”

For every operator with assets or equipment requiring maintenance or repair, the most comment request is: “How can service engagements be faster and frictionless?”

Example Use Cases
Putting the Network to Work

This requires:

• Visibility into and collaboration processes for maintenance and project execution.
• Cross-company collaborative service and maintenance processing to help ensure alignment and execution of scope, planning, and delivery of work.
• The ability for the service provider to update notifications, orders, and confirmations in the operator’s plant maintenance system.

And that’s what a unified network delivers.

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The Network Effect
Today, 77% of the world’s transaction revenue touches an SAP software system. This includes 25 industries and more than 440,000 organizations. *

Our huge customer base affords us the opportunity to build on, enhance, and unify vibrant business networks already in place. In fact, SAP has proven experience in scaling and enabling business networks such as Ariba Network, SAP Logistics Business Network, and SAP Intelligent Asset Management— which together currently connect more than four million companies across the globe.

By extending beyond individual businesses and facilitating the exchange of data and insights across trading partners, companies can deliver more value than they ever have before. They can turn business relationships into a competitive advantage, using collective network intelligence and cross-network process collaboration to navigate disruptions, get products to market faster, reduce overhead and costs, or open up new businesses.

This is not just another network. It’s a business-changing way of working that simultaneously helps reduce risk and amplify both speed and stability for a company.

*SAP Fast Facts

As detailed in the above, to thrive in a networked economy, companies need to transform today’s supply chains into a unified, collaborative, and intelligent network. Such a network is critical for adapting to changing market dynamics and future-proofing their businesses. It’s foundational for creating resilience against global disruptions and the flexibility to transform business models—all while doing business as sustainably as possible.

SAP can help companies make this happen—expanding beyond well-defined internal business processes and digitalizing cross-company processes at every level of the supply chain.