

INDUSTRY SPOTLIGHT

# Keep your complex, cost-pressured aerospace and defense supply chain soaring



**kinaxis**<sup>®</sup>



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**Imagine an air traffic control center that could see only one plane at a time. Things would get chaotic pretty fast.**

Your aerospace and defense (A&D) supply chain is no different. Yesterday's step-by-step, traditional and siloed planning techniques are no match for today's dynamic reality. Especially when you're under pressure to do things faster, smarter and leaner. Digital product development, computer-aided design and increased automation can all streamline processes, cut waste and maintain productivity. But they also make intricate supply chains even more complex.

# Key forces driving change in aerospace and defense



## Pressure on performance

- High global defense and commercial aircraft spending is putting pressure on supply
- OEM's increased production rate is resulting in difficulties for suppliers to maintain on time delivery, quality management and compliance with regulations
- Increased pressure on manufacturers to enhance visibility and efficiency using advanced technologies



## M&A and consolidation

- Mergers and acquisitions (M&A) brings more geographic dispersion, more network and product complexity with multiple sources of supply
- M&A remains strong as OEMs expand margins, putting pressure on suppliers to reduce costs
- The industry continues to consolidate for scale and efficiency with dominant firms acquiring SMEs



## R&D

- The global A&D industry still spends much less on research and development (R&D) than other critical sectors

- Focus on cost-saving and efficiency on supply chain, markets, business portfolio, and technology to release cash for R&D
- Space is becoming an important part of the defense R&D ecosystem as assets such as satellites are relied upon for military operations



## Increased risk

- COVID-19, global trade tensions and uncertainties could become costly barriers to growth
- Supply chain disruption and delayed deliveries are likely as some manufacturers are moving to avoid tariffs on raw materials and components
- Urgent need to focus on nurturing long-term stable partnerships across the industrial base and global supplier management



## High demand for clean technologies

- Allocation of budget for clean technologies is growing by 7.5% annually
- Clean technologies will require new supply chain, adding to complexity
- Demand increase for clean technology is in line with support for environmental regulatory compliance, efficiency and costs-savings

# Three technology and process problems creating turbulence in aerospace and defense supply chains

We partnered with International Data Corporation (IDC) to survey over 300 industry professionals to study current and future pressures on supply chain planning and how modern digital technologies are driving supply chain transformation initiatives. This survey was conducted across six industries, with A&D being one of them.

Based on this data, we identified three key trends we believe are shaping the future of supply chains for A&D companies.

## **1 A&D companies need to build resilient supply chains.**

Over 71% of the A&D supply chain leaders reported that their supply chain has the built-in agility to meet changing business requirements. This should come as no surprise as A&D companies use multiple unique suppliers, hire a specialized workforce and have complex processes, all which require time and resources to build and nurture. However, it is still too early to call this a success for the industry as only half the industry reported that their supply chain goals are aligned to their overall company vision, a key factor in continuing to drive resilience.

## **2 A&D companies need to keep moving away from legacy systems.**

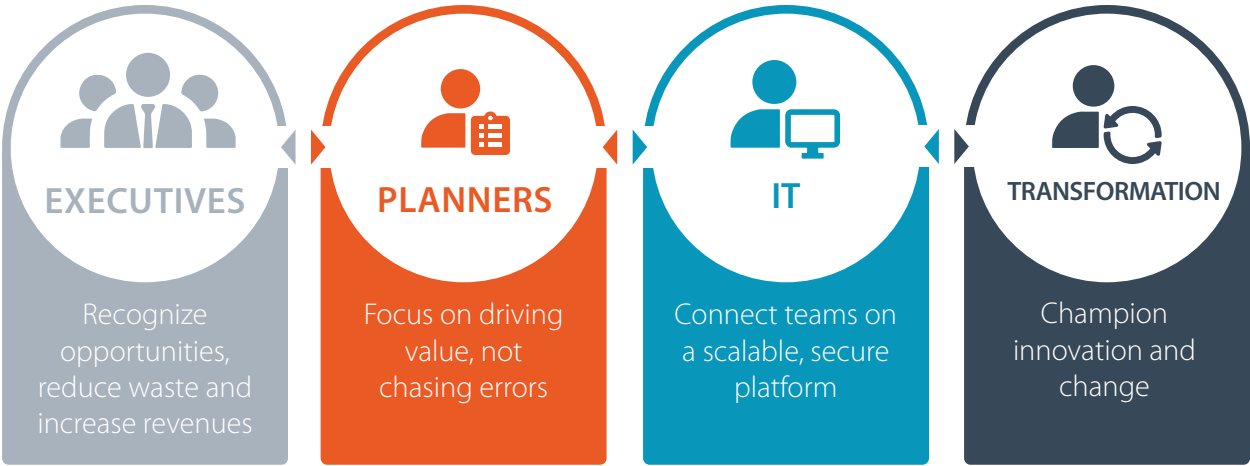
45% of A&D professionals surveyed reported using legacy systems such as Excel spreadsheets in their supply chain, but only 7% of A&D companies reported using a fully integrated supply chain planning suite, the ultimate end goal for all companies. A fully integrated suite is easy to implement, use and scale while giving companies visibility and traceability capabilities.

## **3 A&D companies need to keep actively collaborating.**

A&D companies reported one of the highest levels of collaboration across their supply chain, which is not surprising given the growing product and supply chain complexity. A&D companies are focusing on collaborating across all processes relatively equally, citing the greatest percentage of collaborative processes in integrated business planning at 33% integrated and only 27% citing sales and operations planning as integrated. A&D leaders should be making greater strides in ensuring all stakeholders are always connected and making collaboration a priority to meet objectives long-term.

# When business units align around a single source of truth, the entire organization becomes more strategic

An end-to-end planning platform creates seamless operations, from the board room to the data center to the factory floor.



Manage your company like never before. With better visibility and collaboration across business units, your company responds to volatility without wasting time or resources. Accurate, cross-network data improves forecasts, so you can monitor trends and maximize gains. The end result is a business that seizes on opportunities slow-moving, siloed companies can't even see.

Create smarter, more confident plans with a connected and collaborative network. Collapsed silos ease friction between teams while cross-company, synchronized data reduces errors and delays. Without these obstacles, planners spend less time troubleshooting and more time advancing business outcomes.

Outdated processes and software shouldn't slow your supply chain. On an end-to-end planning platform, you only need to make updates in one place. Built-in features keep data secure and up-to-date while customizations guarantee that a variety of user needs are met. Without multiple, disconnected systems, the IT organization can be confident it's driving lasting transformation.

Complacency in innovation can be destructive to your company. Stay competitive with end-to-end supply chain visibility so you can know sooner and act faster. Leveraging new technologies allows you to respond instantly and securely to change. Lay a foundation for best-in-class supply chain transformation, so you can operate efficiently and become more agile in a volatile marketplace.

# Concurrent planning is the key for aerospace and defense companies

Traditional, siloed planning is like playing a game of telephone: information gets passed from one person to the next and hopefully still makes sense by the time it reaches you. Concurrent planning is like being in a virtual meeting: everyone is part of the same conversation, boosting agility, speed and efficiency. Kinaxis® revolutionizes planning by delivering the agility you need to make fast, confident decisions in an unpredictable world. We combine human intelligence with AI and our unique concurrent planning technique so you can plan better, live better and change the world.



A recognized Leader by Gartner, Kinaxis offers an unmatched 12-week RapidStart go-live process that's proven to transform CFO and supply chain metrics for companies of all sizes.

### Know sooner.

Break down silos, eliminate redundancies and cultivate trust with end-to-end visibility and transparency across your supply chain network.

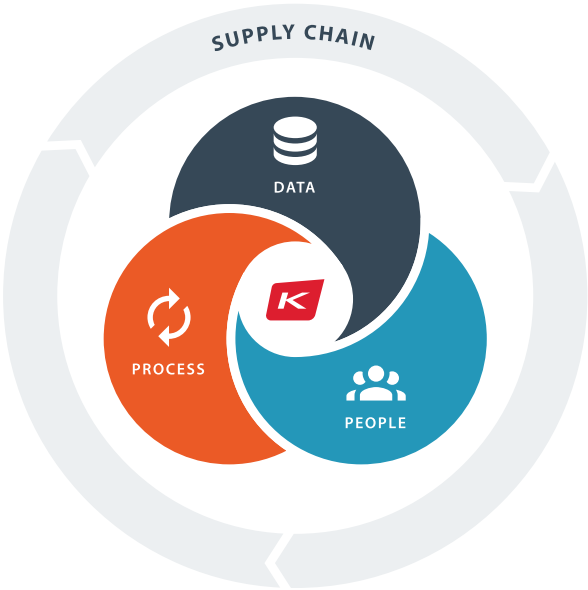
### Act faster.

Embrace volatility, build resiliency and seize opportunities with the agility to execute – no matter what comes your way.

### Remove waste.

Leverage AI, machine learning and prescriptive automation to maximize efficiency and eradicate wasted time, resources and talent.

### CONCURRENT PLANNING





## THE RAPIDRESPONSE DIFFERENCE

# A more efficient, responsive way to manage your end-to-end supply chain, no matter what happens.

In today's volatile global market, traditional planning techniques are no match for the complexity and uncertainty that can occur at any time. Issues such as material shortages, logistics challenges and market volatility can quickly lead to massive supply chain disruptions. It can be impossible to reliably deliver on promises when you're locked into disconnected, cascaded planning processes that generate second-rate results.

Stop settling and start succeeding with a new, more intuitive way to plan. Our concurrent planning engine lets you instantly and continuously balance your end-to-end supply chain. With secure, cloud-based integration capabilities, you can connect all your internal and external supply chain data sources and algorithms.

With Kinaxis RapidResponse®, it's easy to implement and meld your existing resources into a configuration that works best for you. Use RapidResponse to run one or more of our customer-proven supply chain planning applications, even if you have existing enterprise resources planning (ERP) instances. Or, build your own custom apps and embedded algorithms, with or without code using our developer capabilities. We give you the flexibility you need to create the supply chain you want. If you can dream it, we can build it.

# Aerospace and defense-focused functions

The unique challenges in the A&D industry call for very specific planning solutions. After all, like your customers, your organization needs to be able to fly with confidence in challenging conditions – and change course as needed – by taking precise, responsive action in-the-moment.

## Here's how Kinaxis helps you support a healthy A&D supply chain:



### Concurrent planning

- Plan and execute continuously (S&OP)
- See cause and effect of demand and supply decisions in real-time
- Break down departmental silos as interactions are all managed from one source
- Fragmented long lead-time network planning can be modeled and managed



### Constraint management

- Rate-based constraints using different units of measure
- Machine, labor & supplier constraints modeling
- Multi-scenario constraints modeling using various tactics such as adding capacity, run rates, prebuild, balance across resources pool and model effectivity to reflect project/contract-based planning



### Scenario planning

- Unlimited what-next scenario simulations
- Ability for anyone to simulate anything at any time and build consensus to the right plan combining artificial intelligence and machine learning (AI/ML) with human insight
- Prescriptive resolutions based on historical options and decisions, utilizing AI/ML to improve decision-making and automation



### End-to-end visibility

- End-to-end visibility for extended supply chain
- Multi ERP and other system integration into a full platform
- Supplier and customer visibility (origin to final delivery)
- End-to-end full level pegging
- GPD modeling assures compliance to contracts and government standards



### True collaboration

- Connect data, process and people
- Real-time data sharing, responsibility-based contextual collaboration:
  - Faster decision-making
  - Driving accountability and better alignment
  - Minimizing impacts of change



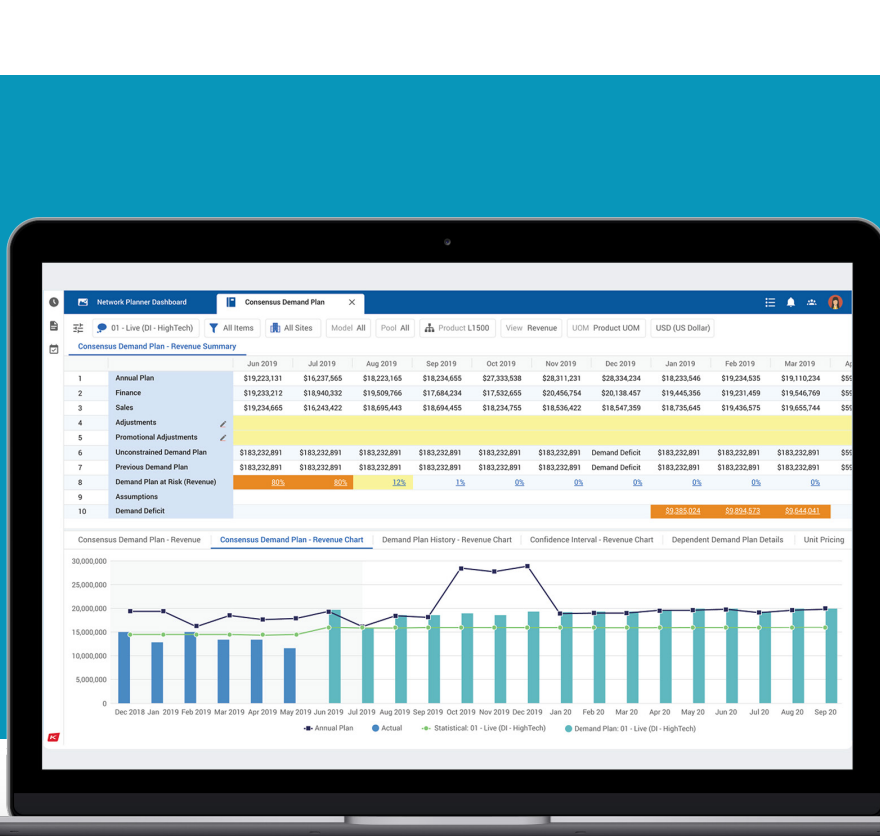
### Always on

- Solvers that allow for planning, monitoring, response management
- Keep demand, supply, inventory and capacity in balance for even the most complex products and most varied BOMs
- Supporting planners with intelligent decision support



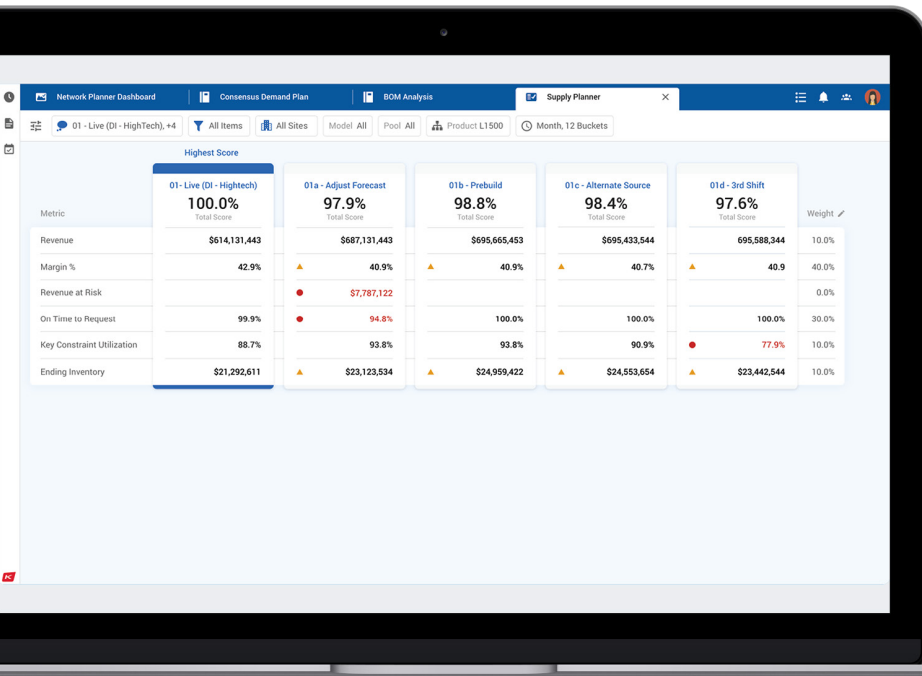
# A platform built to fuel strong performance

From data synchronization, smart collaboration and AI-enabled “always learning” algorithms, you can do more with your supply chain planning processes than ever before. Craft and test elaborate “what-next” scenarios and make decisions in real-time with partners so every challenge is met and not a single opportunity is missed.



## End-to-end synchronization

Our single cloud-based platform, code base and data model let you synchronize all aspects of your supply chain for dynamic supply and demand balancing.

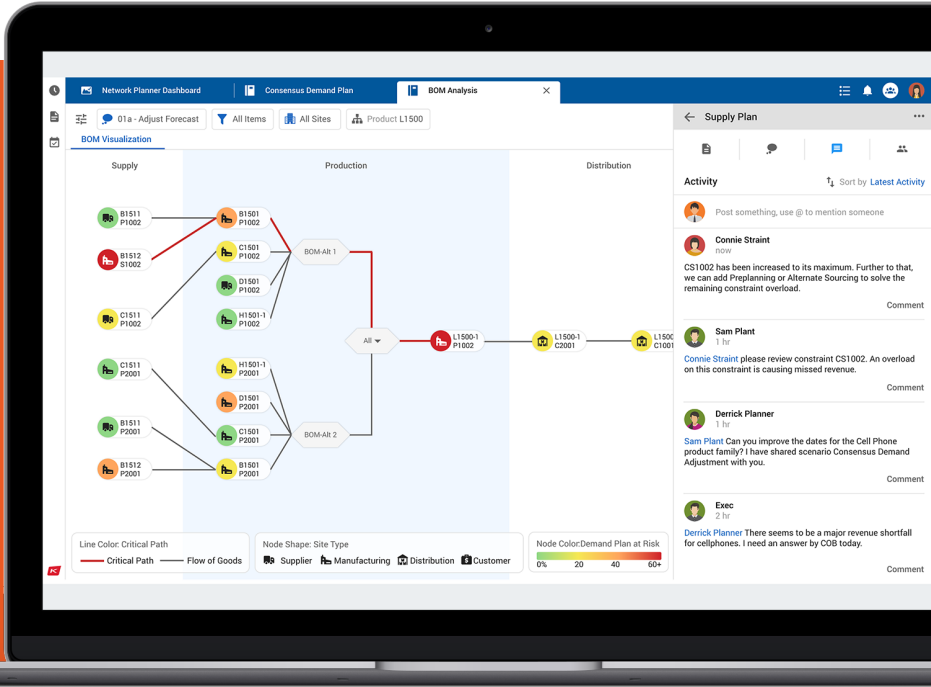


## What-next scenarios

Run any number of scenarios, create infinite supply chain digital twins and capture historical context in seconds for accountable decision-making based on key performance indicators (KPIs).

## Smart collaboration

Our responsibility matrix shows you who to work with, delivers the context you need and archives your decisions – all within the platform – for faster, smarter collaboration.



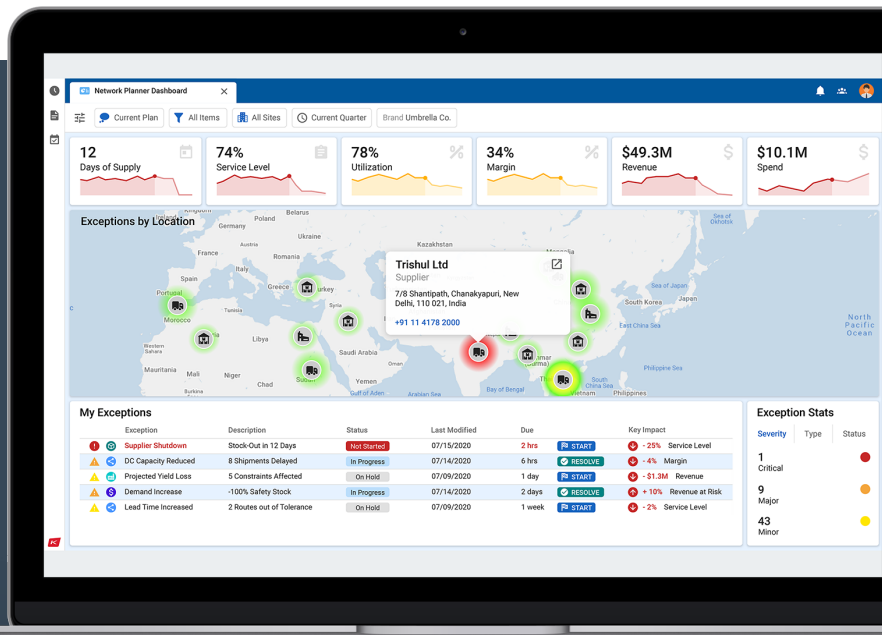


## Planning and execution alignment

Our ERP-agnostic planning solution lets you connect all internal and external data sources, including multiple ERPs, without duplication. The result is a unified, connected digital enterprise.

## Automated intelligence

Automate routine tasks and escalate exceptions with AI and predictive algorithms that are always on, always learning and always synchronized. Let machines do the heavy lifting so you can focus on what really matters.



## Personalized user experience

Our responsive role-based user interface lets you tailor metrics and data, and guides you through your day with personalized workflows, playbooks and alerts.



INDUSTRY LEADERS DEPEND ON KINAXIS FOR CONCURRENT SUPPLY CHAIN PLANNING



Honeywell



Raytheon

Kinaxis delivers the agility you need to build resiliency into your A&D supply chain. Get started now with the fastest successful end-to-end advanced planning go-lives on the market. Learn more at [www.kinaxis.com](http://www.kinaxis.com).



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