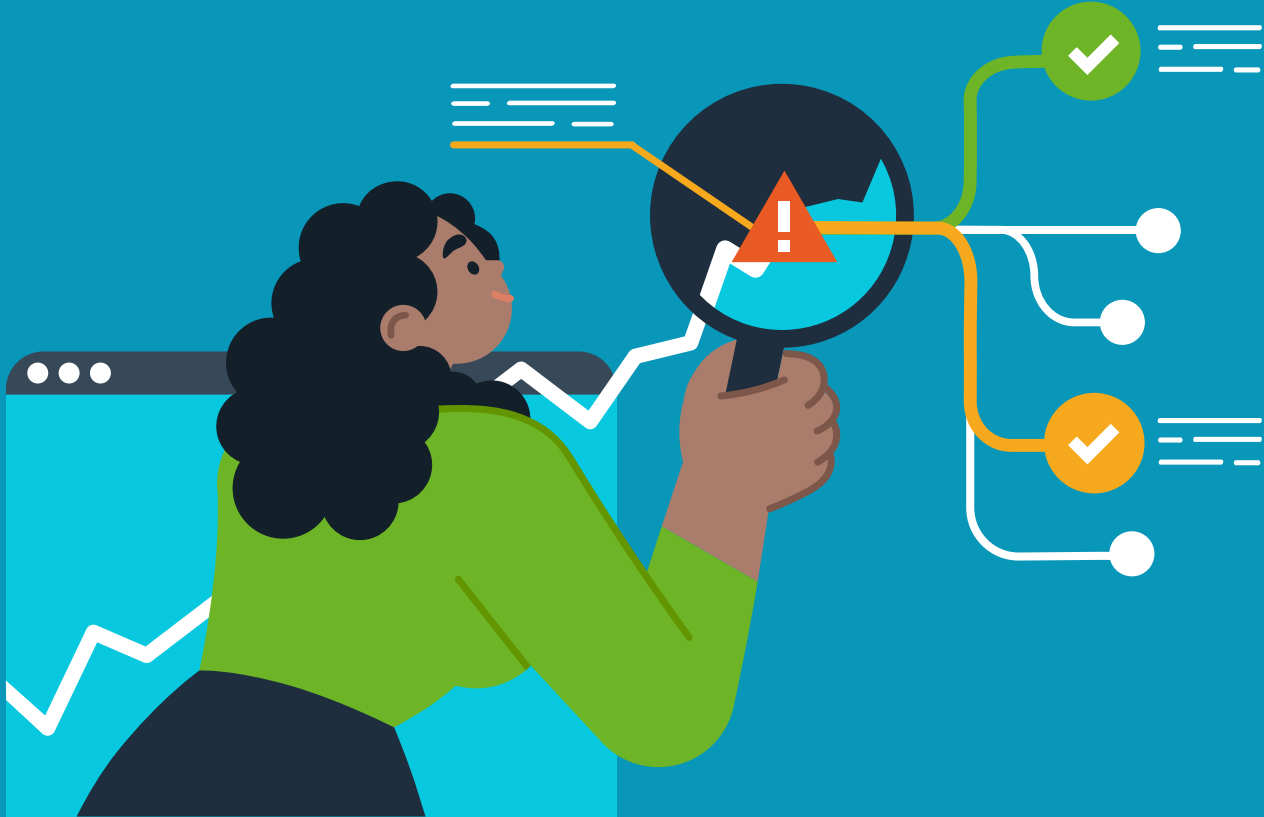




# Control tower transformations

3 critical capabilities to go beyond visibility to actionable insight



# It's time to go beyond traditional, visibility-centric control towers



Our world is more connected than ever before – and so are the supply chains we depend on every day.

Bringing a product to market now typically involves a network of suppliers, manufacturers and/or co-manufacturers, distributors, resellers and retailers. It also requires a globally distributed team to manage its journey to consumers. On top of all that, the pace of business is accelerating at an ever-increasing rate, meaning companies need to make decisions faster and more frequently.

That need for fast decision-making is driving forward-thinking companies to seek out control tower solutions to help with supply chain orchestration and provide more than just end-to-end visibility. However, not all control towers are created equal. In fact, many control towers don't even serve the same purpose, leaving many people stuck at the starting line. Or worse, they end up completing an expensive, time-consuming implementation only to realize what they got isn't what they needed.



# Let's start with a definition

Before we discuss what to look for (and avoid) to identify and implement the best control tower for any given supply chain, let's start with a definition.

“Gartner defines ‘control towers’ as a concept combining five elements – **people, process, data** and organization supported by a set of technology-enabled capabilities for **transparency** and **coordination**.”<sup>1</sup>

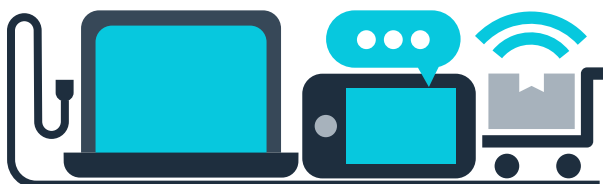
– GARTNER VP ANALYST CHRISTIAN TITZE



<sup>1</sup> Christian Titze, “Gartner: What supply chain managers should know about control towers” SupplyChainDive, March 13, 2020



Control towers  
are supported  
by technology,  
not defined by it.



There are two important statements within that definition. The first is that control towers are supported by technology, not defined by it. This is a critical point for anyone considering a control tower solution – or any technology solution for that matter – to understand. It's about the business process, or technique, not the technology itself. In truth, the technology doesn't matter at all if you haven't set up the right processes.

So, what is the right process? If the goal of your control tower is to drive successful supply chain orchestration and make faster, more confident business decisions, then there's only one answer: concurrent planning.

Concurrent planning is the process of making and managing synchronized plans across time horizons, business processes and organizational boundaries at the same time. In short, it breaks down organizational silos and disconnected data, and enables the agility and resiliency every supply chain needs by continuously aligning everyone and everything, from the front office to the shop floor.

That brings us to the second important statement within Titze's definition of a supply chain, and the first of our three critical capabilities for any control tower:



**real-time  
transparency**

CRITICAL CAPABILITY #1:



# Real-time transparency

# Visibility vs. transparency

You've likely heard a lot about the power of end-to-end visibility and how it can save your supply chain from the devastating impact of the next massive global disruption. However, Titzze doesn't say control towers enable visibility in his definition. He says they enable transparency –

and there's a monumental difference between the two. Many traditional control tower solutions only offer visibility and act as little more than glorified dashboards, which won't be enough to save the day when disaster strikes.



Visibility



Transparency

## Pretend for a moment there's an asteroid headed toward Earth

If you only have visibility, you know it's coming but you have no idea how big an impact it will have.

Will it miss Earth? Will it hit? Where will it hit?  
Will it be a minor strike, or the kind that wipes your business off the face of the planet?

Transparency answers those questions and empowers you with insight to know which mitigation option will be most successful. In a supply chain context, that asteroid is any kind of disruption – from a machine unexpectedly going down, to a pandemic that causes a ripple effect so intense you're still feeling the impact years later.

Despite common claims from many control tower solution providers, transparency doesn't just organically happen when you connect all your data in one centralized location. While that is a vital first step and helps deliver visibility, you'll also need the ability to analyze and compare that data using scenarios and digital twins – real-time digital representations of your end-to-end supply chain.

Scenario planning is so critical to the ability to proactively respond to disruption that according to research by Supply Chain Insights, half of all supply chain leaders are planning to invest in this area because of lessons learned from COVID-19 so they can better understand mitigation options and their impacts going forward.<sup>2</sup>



To summarize, visibility allows you to see things. Transparency helps you understand the context of what you're seeing. One of them has you waiting passively for whatever the future brings – the other lets you proactively change it.

But proactively changing your supply chain's future can be a slow, manual process if you don't have the next critical control tower capability:



**cognitive  
automation**

<sup>2</sup> Lora Cecere, "Navigating the Supply Chain Through the Pandemic," Supply Chain Insights, February 2021



CRITICAL CAPABILITY #2:



# Cognitive automation

# With so many fires to put out, who has time to think about the big picture?

One of America's founding fathers, Benjamin Franklin, famously said, "Nothing is certain except for death and taxes." Had he been alive now, he might have amended that statement to include supply chain disruption. The sheer volume of decisions companies must make daily just to survive is overwhelming. Most of that burden is falling to planners who are forced to spend countless hours continuously planning and replanning every small detail. Spending all that time on minor exceptions is keeping planners from focusing on what matters – the decisions that will have the largest impact on the business.

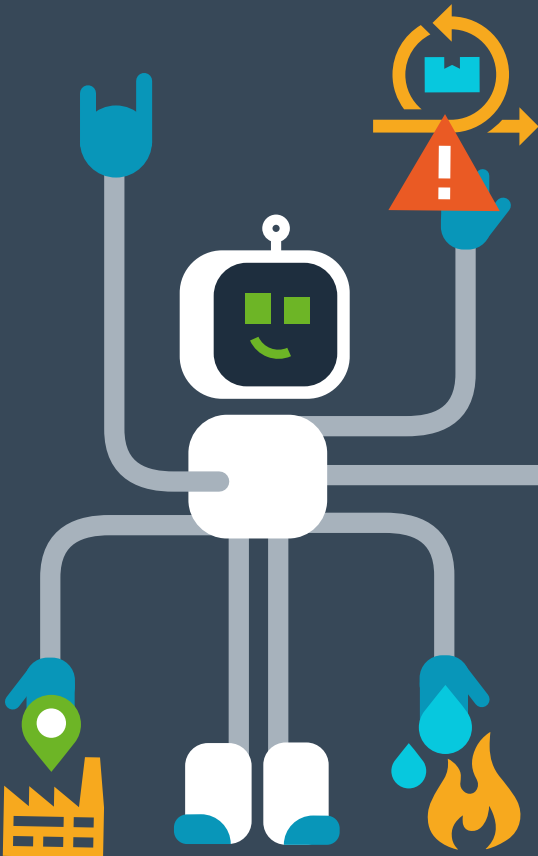
Most control towers fall short here because they can't turn visibility into action. Enter cognitive automation.



Most of that burden is falling to planners who are forced to spend countless hours continuously planning and replanning every small detail.

Automation frees up planners' time by turning the visibility gained from all supply chain inputs into an understanding of what to do next.

Automation takes care of mundane, repetitive tasks and automatically resolves minor exceptions using user-defined tolerance thresholds. In many cases, this is achieved by automating certain workflows or processes.



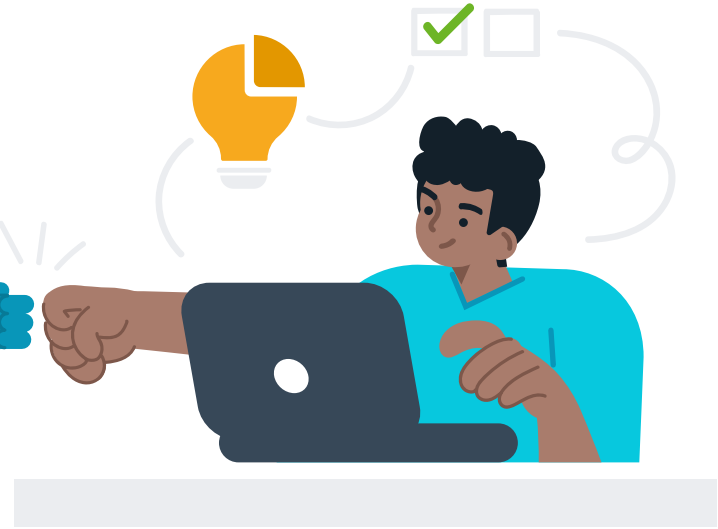
Cognitive automation goes one step further and learns from the actions and decisions planners make to drive ongoing improvements to system-generated actions. This not only allows planners to focus on supply chain disruption and changes that have the greatest business impact but also improves the automated actions of the system over time and allows for more decisions to be automated in the future.

The trick with cognitive automation is that it can't happen in isolation. By its very nature, it needs planners to validate certain system-generated actions and to learn from them over time.

That means it's one part of a two-sided equation, the other half being our third critical control tower capability:



**augmented intelligence**



CRITICAL CAPABILITY #3:



# Augmented intelligence

Augmented intelligence is the concept of combining human and machine intelligence to generate the best outcomes. Human and machine intelligence each have their strengths. Machines can parse through vast amounts of data, looking for patterns and exceptions at a speed even an army of people could not replicate. Using that data, machine learning can surface up potential events that may cause significant disruption, tell planners what the projected impact of that event may be and even offer up resolution options based on past actions in similar circumstances.

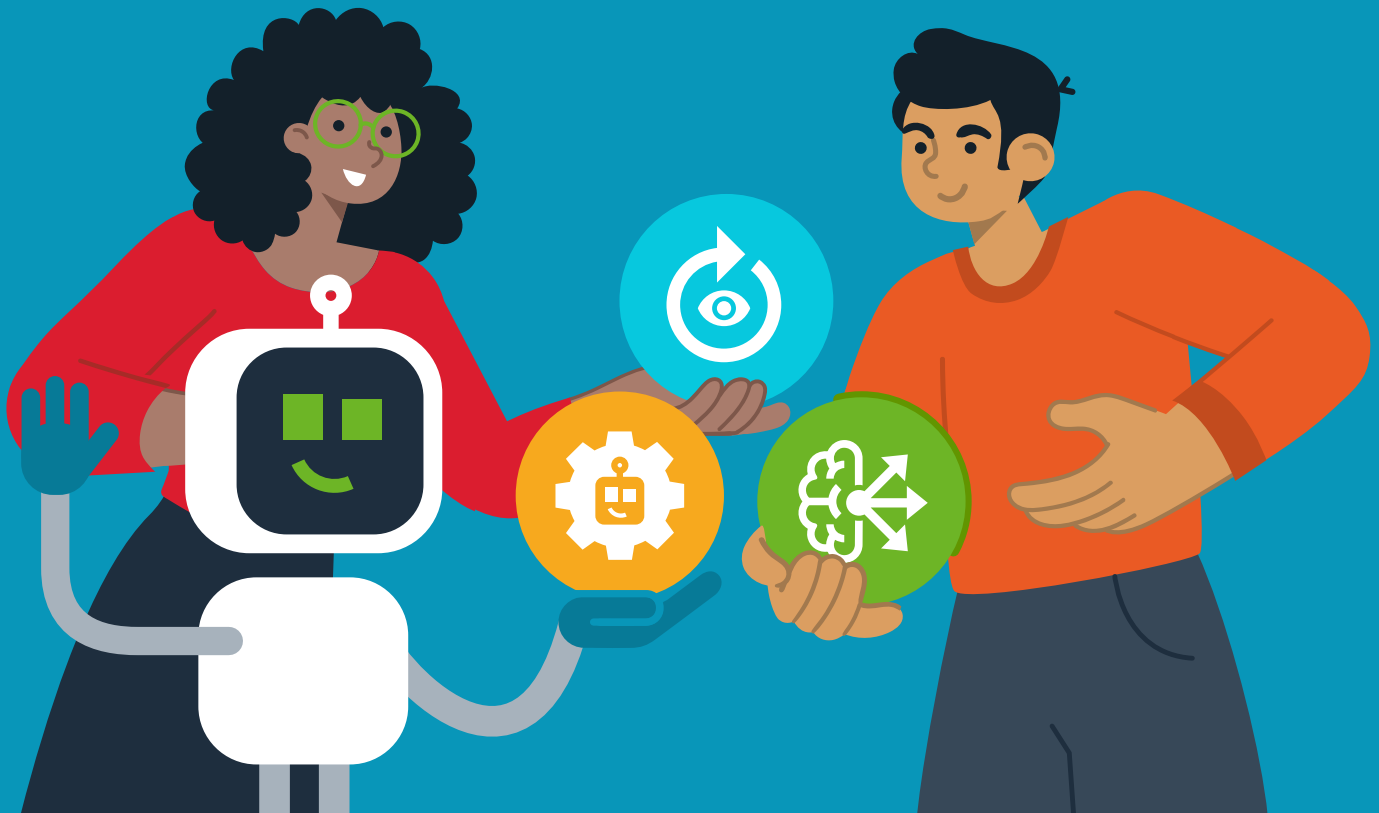
But nothing can replace human judgment, no matter how much of our supply chains we automate or how well our AI-based systems learn. Try as they might, machines cannot yet adequately replicate the many nuances and intricacies of human relationships – something intrinsic to your supply chain. There are relationships with suppliers. Relationships with customers. Relationships with other people within your organization. There are times when you as a person need to make a decision that violates certain automated policies to preserve those relationships or set your business on a new course.



As Nucleus Research calls out in its 2021 Control Tower Technology Value Matrix, control towers need to provide “an end-to-end view of an organization’s supply chain with intelligent response” and deliver “informed situation planning and adaptive execution capabilities.”<sup>3</sup>

Augmented intelligence created through the pairing of **human judgment** and **advanced prescriptive analytics** is what allows for an intelligent response and adaptive execution.

# The golden control tower triangle

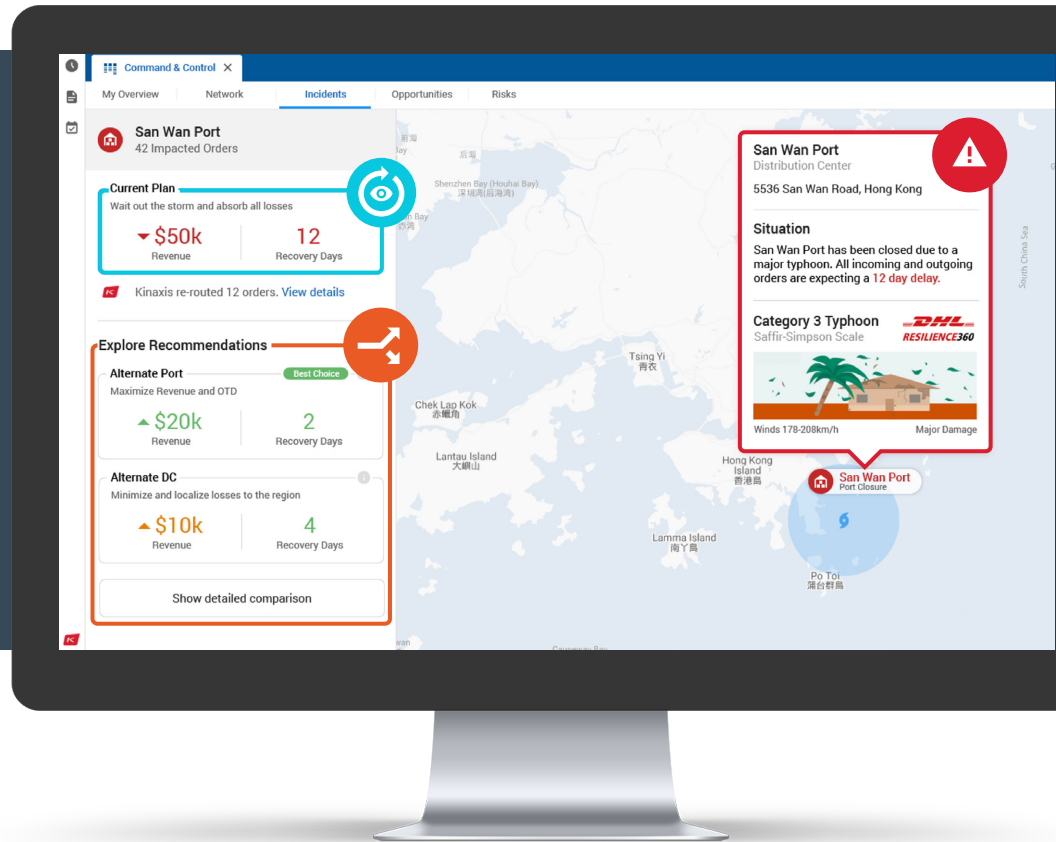


So, what does it look like when you combine real-time transparency, cognitive automation and augmented intelligence?

# Let's look at a practical example

Imagine your business has a lot of critical manufacturing happening in Hong Kong. You're already using concurrent planning across your end-to-end supply chain. That means your data, processes and people are always aligned and continuously synchronized.

If there's a disturbance in the supply chain, concurrent planning with a responsive control tower dashboard helps you understand how the issue impacts on your business.



## Sense event

The first thing that happens is your control tower senses and alerts you to a potential significant disruption:

a Category 3 typhoon is headed toward the San Wan Port.



## Predict impact

At the same time, using machine learning-driven predictive analysis, it also tells you what the potential impact on your business will be.

Based on dynamic concurrent demand and supply balancing, the system finds 42 potentially impacted orders. If you do nothing and just wait out the storm before shipping out your orders, you'll experience a 12-day delay representing around \$42,000 in projected revenue losses. This is the power of real-time transparency.

You see a potential disruption before it hits, and you instantly understand the impact.



## Prescribe solution

Within that same alert, your control tower also recommends two potential resolution options and calculates the new impact for each.

Choice one is to ship out of an alternate port. Your recovery time would be shortened to two days, and you'd see an increase of around \$20,000 in revenue. You'd be able to maximize revenue and on-time delivery.

Option two is to pull inventory from an alternate distribution center. This option enables you to minimize and localize losses to just the one impacted region. Recovery time would be four days, and you'd see an increase of around \$10,000 in revenue.

This is the power of a combination of cognitive automation and augmented intelligence.



After reviewing recommendations and their impacts, a dashboard like the Kinaxis® Command & Control Center helps evaluate alternative actions and make an informed decision.



## Execute decision

The last step is where the human judgment part of augmented intelligence comes into play and you as a planner make an informed decision based on the predicted impact and prescribed resolution options your control tower has surfaced.

After evaluating all your options, you opt to agree with the control tower's recommendation of shipping through an alternate port.



# Control towers done differently



Only the Kinaxis control tower, known as the Command & Control Center, combines real-time transparency, cognitive automation and augmented intelligence to deliver fast, confident decision-making – whether you're just trying to manage the day-to-day or need to react right in the middle of a massive, unexpected disruption.

Here's how we do control towers differently.

### 1 Life throws you a curveball

Get instantly alerted to a potential risk with a notification that shows you the impact of the disruption and recommends actions on how you can resolve it.

### 2 Weigh your options

Evaluate the already generated scenarios that showcase trade-offs and options, comparing them all to each other, the current plan and critical KPIs.

### 3 Watch the magic of concurrent planning

Blink and you'll miss it! Your entire supply chain automatically rebalances in seconds, letting everyone know of the change in plans.



### 6 Sit back, relax and wait for life's next curveball

Rest easy knowing no matter how fast or frequent things change across your supply chain, you've got the agility to respond quickly and confidently.

### 5 Boost the power of supply chain automation

Automatically capture your decision and the context behind it to improve future system-generated recommendations and fully automate more decisions over time.

### 4 Adjust plans to reflect real life

Collaborate with colleagues, push the chosen scenario live with a single click and head down the path to execution glory.

Eliminating volatility in your supply chain is impossible. Managing it shouldn't be. The Kinaxis Command & Control Center application makes it easy to anticipate what could be coming your way and take intelligent and increasingly automated control over your operations from the C-suite to the production line. You'll be empowered to confidently manage risk, seize opportunities and cope with escalating volatility.

# Kinaxis enables you to:



## Increase agility

Continuously balance demand and supply with always-on algorithms that automatically adjust plans based on what's happening in the real world.



## Extend your network

Extend the scope of your planning by seamlessly incorporating a wide range of digital inputs and connecting to partner extensions and Kinaxis-certified applications.



## Seize opportunities

Immediately understand the impact of any change across your ecosystem and take quick action with prescriptive recommendations based on key performance indicators (KPIs).



## Empower planners

Leverage AI and predictive algorithm-based automation to free up your team's time and focus their attention on the highest-priority exceptions.



## Boost efficiency

Automate routine decision-making, escalate exceptions, and watch the system continuously learn and improve based on your team's actions.



## Monitor performance

See the health of your business at a glance with instant visibility into how your supply chain is affecting key metrics like revenue and margin.



## Mitigate risk

Spot potential disruptions to any part of your network sooner with real-time exception- and risk-based alerts.

With Kinaxis and our Command & Control Center application, you've always got eyes on your entire supply chain. And the confidence to know that no matter what happens, you've got it covered. Through automated responses for those day-to-day adjustments. Or by calling in a planner to do what they do best – handle those complex disruptions.

**Don't just take our word for it; here's what some of our customers have to say:**



“

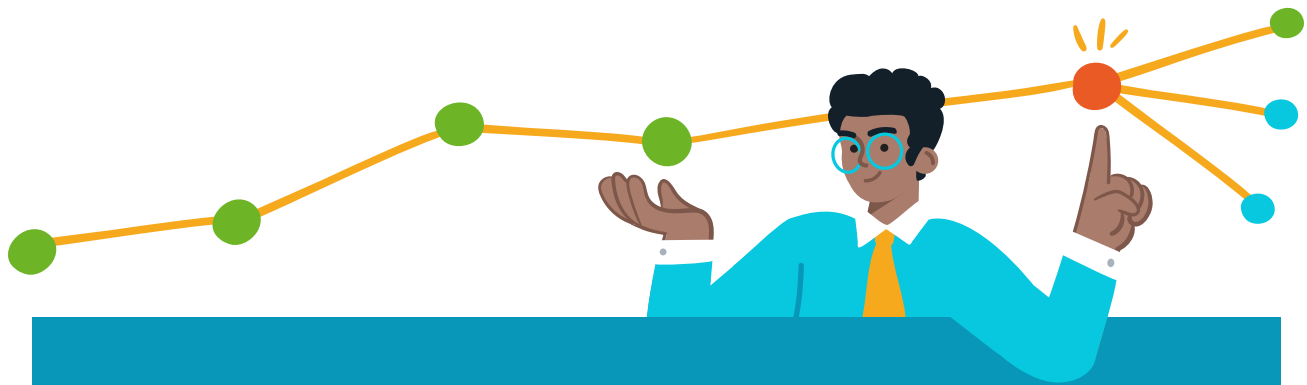
“RapidResponse has improved management’s ability to make decisions based on choices and consequences, and the speed at which they do so.”

– VICE PRESIDENT, FORTUNE 500 HARDWARE COMPANY

“

“As new information becomes available, we can simulate changes on the go and see the what-next analysis all the way down the supply chain.”

– SUPPLY CHAIN GOVERNANCE MANAGER, S&P 500 ELECTRONICS MANUFACTURER



With the fastest end-to-end go-live process on the market, Kinaxis RapidResponse® can quickly and effectively provide a control tower application tailored to meet the specific needs of your business, no matter how complex your supply chain.

[LEARN MORE](#)

## About Kinaxis Inc.

Everyday volatility and uncertainty demand quick action. Kinaxis delivers the agility to make fast, confident decisions across integrated business planning and the digital supply chain. People can plan better, live better and change the world. Trusted by innovative brands, we combine human intelligence with AI and concurrent planning to help companies plan for any future, monitor risks and opportunities and respond at the pace of change. Powered by an extensible, cloud-based platform, Kinaxis delivers industry-proven applications so everyone can know sooner, act faster and remove waste.

Don't believe us? Ask us to prove it. Learn more at [Kinaxis.com](https://www.kinaxis.com).

## Here's more to discover on this topic:

- [Nucleus Control Tower Technology Value Matrix 2021](#)
- [Thinking differently about supply chain planning](#)
- [Taking intelligence control of your end-to-end supply chain](#)