

SPOTLIGHT

# A storm is coming

Is your supply chain  
prepared for the next  
natural disaster?

**kinaxis**<sup>®</sup>



---

You don't know when, or what form it will take, but a storm is coming and it's putting your supply chain, the lifeblood of your business, at risk. From the intensification of weather patterns due to climate change to the unpredictable ripple effects of earthquakes and every natural disaster in between, your supply chain and the overall health of your business rests heavily on your ability to manage through the unexpected.

The supply chain's only true nemesis, the one factor that can bring an entire global operation to a screeching halt, is one that cannot be controlled through legislation or negotiation, and always comes with little or no warning – the natural disaster.

It may come in the form of a raging wildfire in California, a category five hurricane in the Gulf of Mexico or a powerful typhoon in the Sea of Japan. With each passing season, the frequency of these events increases and their intensity rises. Short of re-engineering the weather, which is a long-term game even for those most dedicated to the cause, successfully managing your supply chain through the next storm, in whatever form it may take, is imperative.

The good news is that when properly prepared, a supply chain can be effectively managed despite the unstoppable influences of Mother Nature. This paper will explore how organizations can successfully manage their supply chain through natural disasters to minimize downtime, ensure customer satisfaction and sustain and even grow revenue despite the harshest conditions. It also includes a real-world experience from Kinaxis customer Keysight Technologies, illustrating how they worked to manage through an unexpected natural catastrophe and how unpredictable events can impact physical and human resources. Find out how prudent strategies, when combined with the right technology, can weather any disaster their supply chain faces.



## Before the storm

When it comes to managing weather intensified by climate change, the Scout motto has it right – be prepared. Or as Benjamin Franklin once said, “If you fail to plan, you are planning to fail.” The first Postmaster General of the United States might well be speaking of your supply chain, both administratively and strategically.

Natural disasters are more frequently disrupting your ability to grow – or even sustain – your business, and if the unpredictable forces of nature are not taken into account, your supply chain will be among the first to suffer and last to recover.

In many cases, organizations who don’t have a plan in place to combat the next natural disaster don’t do so because they won’t – it’s because they can’t. Blinded by a wall of disparate legacy systems and siloed operations, supply chain planners are unable to fix what they cannot see – even under normal operating circumstances. And when the unexpected hits, they’re quickly overwhelmed, leaving the organization’s supply chain vulnerable to the forces of nature.

While there is no way to predict just how strong the next hurricane, typhoon or earthquake will be, there are measures to be taken to help your supply chain mitigate any disastrous weather event. Supply chain planners may be forced to deal with an increase in demand, limits on supply and an infinite risk to the transport networks they rely on. This could include physical damage to infrastructure, which could in turn prevent the people supporting the business to get to work. All of this, when combined with spikes in the price of the necessary but limited commodities that enable their supply chain, adds additional complexity to every scenario.

“If you fail to plan, you are planning to fail.”

**BENJAMIN  
FRANKLIN**

## Preparation has its advantages

On the bright side, some supply chain practitioners have taken heed from past weather events and other natural disasters to gain a better understanding of how to prepare. Power utilities now take a ‘boots on the ground’ approach by placing vehicles and equipment in strategic locations as a matter of standard practice to streamline time to repair.

Companies operating global supply chains take cues from weather forecasts by pre-building and staging inventory and or raw material to minimize the physical interruption of supply that may occur. Given even the shortest lead times, contingencies can be made within the supply chain plan to move inventories to locations away from the physical danger to ensure its safety. By working with customers to determine if early delivery is an option, organizations can further minimize the impact of any disruption.

But what of the technology that sits in the background, the unseen yet critical backbone of any modern supply chain? It’s vital to ensure backup systems are in place for every touchpoint in the supply chain – from fail-over generators to alternate network and communication strategies and housing. Each is critical to ensure the next unavoidable event is managed at peak efficiency to allow you to ensure the safety of your most vital asset – your human resources – and concentrate on alternate supply chain scenario planning.



**Advanced warning or not, having the following technology capabilities in order will provide a fortified wall of digital sandbags.**



#### **Adopting Software-as-a-Service (SaaS)**

Built-in redundancies and multitude of mirrored data centers eliminate system downtime with on-demand availability regardless of the local impact of severe events.



#### **Global collaboration**

Visibility, when combined with the ability to collaborate with suppliers and customers, helps you determine and set expectations before and after the event.



#### **End-to-end network visibility**

Having a complete view of your supply chain streamlines processes and breaks down planning silos to allow you to plan concurrently across every area of your supply chain.



#### **Quick scenario / resolution modeling before and after the event**

By being in direct contact with suppliers, contingency planning is streamlined and can shorten time to resolution. The result? Happier customers, lower costs and less risk.

Completely eliminating the kind of impact a natural disaster can have within your supply chain is impossible. Fortunately, managing through any weather event with a supply chain that's fully connected in Kinaxis® RapidResponse® can help turn a negative into a positive.

## **How RapidResponse guides you to safety**

RapidResponse is enterprise resource planning (ERP) system agnostic, unifying supply chain planning activities on a single cloud-based integrated planning platform to bring all internal and external data sources together under one roof. Using pre-built templates, standard integration methods and connectors, RapidResponse connects multiple ERP and data sources, which results in a unified, connected digital enterprise.

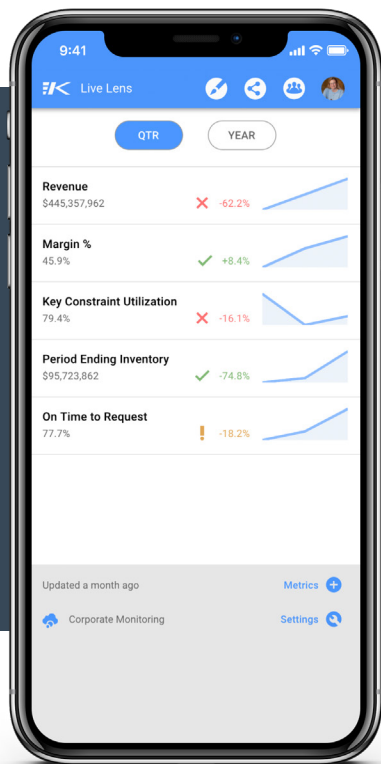
Leveraging its complete view of the supply chain, RapidResponse enables smarter collaboration by automatically finding and engaging the right people and the right information internally with your planners and externally with your suppliers and customers. Organizations can respond quickly and appropriately to the influences brought on by even the most powerful storm. When everyone is in the loop, planners can more quickly determine best case scenarios with confidence while leaving no one – especially the customer – in the dark.

During an emergency, fast, cost-effective decision making requires everyone to be working toward the same goals, quickly resolving supply chain issues and minimizing their impacts to keep both your bottom line healthy and reduce stress on your supply chain planners. With end-to-end visibility across all supply tiers, RapidResponse ensures your team can deliver on promises under any circumstance. Using what-next scenarios, RapidResponse helps planners predict any outcome, factoring in historical data and applying it to any planning horizon. Add to the model the ability to substitute alternate parts, suppliers, or routes plus the associated costs, and you have a complete understanding of margins and your ability to deliver.

With no limit to the number of scenarios you can run, the ability to prototype the optimal outcome based on the impact of a weather event on and as needed, or even by the minute basis, is well within the realm of the platform's capabilities.



With end-to-end global visibility, RapidResponse provides a realtime look at the status of every point in the supply chain, helping quickly determine the best course of action during a natural disaster.



Extraordinary circumstances demand flexibility and mobility, which is what RapidResponse provides, keeping you connected to your supply chain no matter where you are.

## Fighting fires at Keysight Technologies

In October of 2017, Kinaxis customer Keysight Technologies, a provider of electronic measurement solutions, experienced a complete production shutdown when one of California's most devastating wildfires destroyed two of the company's auxiliary buildings at their Santa Rosa headquarters and laid waste to the homes of more than 100 employees.

Keysight President and CEO Ron Nersesian made his company's priorities clear from the outset of the emergency, putting the welfare of his employees before all else. Nersesian's senior management mobilized to deploy a supply chain leadership response team to mitigate the company's ability to deliver product to its customers without delay.

In the first few days of the shutdown, the team was in touch with customers to communicate potential delays and reiterate the company's commitment to deliver orders. Leveraging its supply chain planning platform, Kinaxis RapidResponse, Keysight's Malaysia site stepped in to coordinate supplier communication as the Santa Rosa team coordinates and secures local material deliveries.

Keysight's supply chain leadership response team utilized backlogged reports from RapidResponse to get a complete understanding of supply and shipments at risk. By simulating changes to their supply chain using what-next scenario planning capabilities, the best course of action to fulfill orders and deliveries was quickly determined.

Raw materials on-route to Santa Rosa were expedited to an alternate Keysight production facility to ensure production viability while headquarters remained closed. To determine production lead times, the team used an integrated view of their supply chain in RapidResponse to align company partners in support of Keysight's alternate plan.

Keysight's people-first approach to risk management emphasized relationships – from personal to professional – above all else. With the help of RapidResponse, Keysight put its supply chain relationships to work, leveraging the unique visibility of its entire supply chain to successfully mitigate disaster for both the company and its people.







## Putting people first

As Keysight reflected on the overwhelming impact of the Tubbs Fire on Santa Rosa and the surrounding area, Jason Wisler, the company's Technology Supply Chain Manager made note that, "The business was always secondary. The word from the CEO on down was always 'make sure the people are covered first.'"

Management from locations all around the world jumped to action, first verifying that every company employee was healthy and safe. Keysight even went as far as to provide emergency mental health and financial support for its employees during the first days of the event, prioritizing those who had lost their homes or who had been displaced by the fire over any supply chain-related business concerns.

With the peace of mind that the employees were taken care of, only then did Keysight look to answer the following questions:

- ▶ What demands will be left unsatisfied by the supply disruptions?
- ▶ What orders should be filled with the limited supply available?
- ▶ Are there other capacity disruptions?
- ▶ How long will it take to recover?
- ▶ What's the margin hit to recover?

To answer these questions with the utmost accuracy when time is of the essence, it comes down to your supply chain planning platform of choice.

## Confidence in the face of adversity

As Keysight is now so acutely aware, the next natural disaster to infiltrate your supply chain is just a shift in the wind away. While it's up to every organization to set in place policies and procedures to deal with extreme disruptions to its business, Kinaxis gives you the confidence you need to know that you're making the best business decisions in time to make a difference, even under the harshest circumstance.

## Additional resources

To learn more about Keysight Technologies' disaster recovery story during the Tubbs Fire and Kinaxis RapidResponse, check out the following resources:

Infographic

[Keysight Technologies: A supply chain disaster recovery story](#)

Case study

[Fighting fire with simulations](#)

Video

[RapidResponse demo video](#)

