PROACTIVE CRISIS MANAGEMENT –
How Retailers Can Prepare for Disruption with Cloud Computing

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Modern retailers operate in a disruptive world. Extreme weather events, terrorism incidents, regional conflicts, pandemics, and other manmade and natural upheavals can send shockwaves across a retailer's enterprise.

Everything from how products are sourced and distributed to how, where and when consumers shop and purchase them can be jolted at any time. And the same global interconnectedness that provides retailers with so many more options for obtaining and selling inventory also makes their industry more vulnerable to incidents that in the past would only have had a limited, localized impact.

Fortunately, cloud computing serves as an ideal underlying technology solution to the myriad enterprise issues posed by the modern, disruptive retail environment. By moving their enterprise operations to the cloud, retailers can obtain the transparency, scalability, flexibility, and sheer analytical power needed to keep their operations ready to respond to whatever crisis may arise, before it occurs.

In this paper, we will examine how retailers can leverage the unique capabilities of cloud computing to enable themselves to proactively, rather than reactively, manage a crisis when one inevitably occurs. Specifically, we will examine how cloud technologies can support real-time supply chain resilience on the back end, and consumer empowerment on the front end, to foster an even closer and more trusted relationship with today's connected consumer, regardless of external events.

This paper will also illustrate the power and potential of cloud computing with a couple of real-world retailer case studies, and highlight some specific technology solutions retailers can deploy to bring the capability of the cloud to their own crisis management and preparedness strategies. Let's start with a look at how cloud-based enterprise technology can play a crucial role in achieving the type of supply chain transparency and resiliency needed to stay in front of major disruptive events.

OPENING THE SUPPLY CHAIN

Analytics, always a critical aspect of any retailer's enterprise management strategy, are even more important in the modern, disruptive world. This is not to say an advanced demand planning solution can always forecast any potential sudden shock to your supply chain. Some extreme surges and shortages will prove themselves beyond the capabilities of any algorithmic tool to predict.

However, once a retailer is facing an unforeseen supply chain disturbance, cloud-based analytics can help ensure that operations quickly rebound and continue as optimally as possible. By adopting a modern analytics and planning cloud solution, a retailer is assured of the latest

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analytics, algorithms and artificial intelligence all the time and every time.

Also, the retail supply chain operates at multiple tiers, spread out among diverse suppliers. Retailers must connect requests and products together, running "what-if" scenarios to reach a workable answer on how they can most efficiently get products in the hands of their customers.

"Real-time tracking of any product in the supply chain has never been easy, but has become exponentially more difficult in today's extended retail enterprise," said Mario Vollbracht, Senior Director of Consumer Markets, Oracle, a retail supply chain expert with more than 25 years of experience as an industry practitioner, consultant, and technologist. "Since the 1980s, retailers have been pursuing strategies to remove inventory costs from the supply chain."

According to Vollbracht, popular methods include just-in-time inventory, where retailers receive the exact number of products they need when and where they need them, as well as drop-shipping, cross-docking, and direct store delivery (DSD), which essentially uses a supply chain partner's warehouses for order fulfillment.

The end result of this extreme inventory cost reduction has been a significant reduction in safety stock. Modern grocery and mass merchandise stores operate without much of a back room — assortment is kept on the shelf with a minimum of overstock. For retailers to run detailed scenarios of how they would deal with sudden surges in demand, or to manage those surges when they occur, they need to achieve flexible capacity and real-time visibility throughout their extended supply chain.

Turning to the supply chain disruptions caused by the COVID-19 pandemic as an example, retailers had a real issue with getting adequate supplies of toilet paper to everyone who wanted it, given the sudden surge in demand. Toilet paper is a low-margin and bulky product, resulting in very little safety stock for this category. With toilet paper selling off shelves literally the moment it was stocked, retailers had to rethink their business model. This ranged from limiting one-

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item-per-household, to breaking down larger household packages into smaller bundles sized for individual consumers, to improving supply chain transparency so they could know exactly where every toilet paper SKU was located at all times, and adequately inform their loyal customers.

Leveraging cloud technology, retailers can connect their ERP/SCM systems with the ERP/SCM systems of their supply chain partners (we will dig deeper into the details of how this works in the cloud computing — technical advantage section on p.5) to create an extended retail enterprise.

"Real-time visibility from source to shelf enables retailers to run 'what-ifs' for any given scenario, including the impact of variables such as tariffs, store closures, and manufacturer shortages," advised Vollbracht.

During a crisis, retailers can easily scale up computing capacity to allow for the needed analysis, tracking, and decision making, in locating inventory at any point in the supply chain and efficiently moving it to meet localized customer demand. They can conduct "virtual audits" to confirm every step a product makes between source and shelf, comparing what

is happening in real time in a supply chain to the agreed-to specifications and conditions. In addition to more effectively ensuring consumers have timely access to in-demand goods, this full visibility also enables retailers to reassure customers that temperature-sensitive items (such as medication or fresh produce) have been properly handled and that products are ethically and sustainably sourced.

Leveraging this enhanced back-end transparency and flexibility, retailers can work with their partners to stand up their supply chain to meet the expectations of the modern connected consumer during a disruptive event.

EMPOWERING THE CONSUMER
In tandem with the retail supply chain becoming an extended, multi-tier operation, it has also shifted from a push to a pull operational model. Constantly connected customers now expect to be able to shop a retailer's entire inventory and have their purchase fulfilled quickly, in the manner they find most convenient.

This means retailers need to provide click-and-collect and on-demand delivery services. Stores need to function as fulfillment hubs for online shoppers, as well as serve their traditional roles. In the case of a disruptive event where stores may have to be restricted to click-and-collect and/or delivery operations, the ability to empower consumers to execute digital transactions at the brick-and-mortar store becomes even more vital.

However, Vollbracht cautions retailers that effectively implementing a click-and-collect program for their customers is a complex, multifaceted task.

"Standing up a supply chain to provide click-and-collect (and beyond) is a tall order," said Vollbracht. "In a case where customers are motivated by extreme panic to hoard certain products, empowering them to conduct omnichannel shopping becomes even more of a challenge."

In one example of Vollbracht's cautionary insight, due to extreme demand for online

grocery deliveries in spring 2020, Whole Foods had to create waiting lists for new grocery delivery customers.

Of course, retailers seeking to empower their consumers during a time of disruption need an accurate count of inventory, not only at the store level, but also at all other points of the logistics chain.

With this additional insight, a retailer can confidently inform loyal customers when they can expect a sought-after product to be in stock at their favorite grocery stores.

At a minimum, retailers need to be able to quickly locate an appropriate substitution product. Also, retailers have to provide access to real-time, accurate inventory data to customer service agents and intelligent digital assistants who can keep customers notified of their order status, including any out-of-stocks or changes.

And once a click-and-collect or on-demand delivery order is placed and the product is located, a store associate will then potentially compete with in-store shoppers to pull products from shelves to pick and pack omnichannel orders. This heightens the need for extremely accurate, real-time inventory tracking at store

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level to avoid conflicts between omnichannel and brick-and-mortar fulfillment. Leveraging cloud-based inventory management software, retailers can run their brick-and-mortar stores like microfulfillment centers, earmarking specific inventory for digital shoppers.

Retailers must keep in mind that an empowered, connected customer who places a click-and-collect order from a store via mobile app will likely be frustrated if they arrive at the store and find their desired product is out of stock. In addition to losing a one-time sale, they could also permanently lose a long-time customer. Effective communication, transparency, and mitigation go a long way!

To that point, we have already discussed how cloud computing enables retailers to create the type of flexible, transparent supply chain needed to support the click-and-collect shopping and on-demand delivery services expected by today's empowered consumer. However, forward-thinking organizations can also utilize cloud computing to go beyond basic omnichannel retail and offer a truly exceptional — and empowered — customer experience.

Retailers can apply the real-time inventory tracking and predictive analytical capabilities of cloud computing to know which consumer will need what products, and when — days or weeks in advance. By linking supply chain data with loyalty and other personalization data, retailers can match specific items with specific customers.

Extending this capability further, retailers can analyze and compare inventory and loyalty data to determine geographic and demographic preferences for certain products and localize assortments to better ensure in-stock levels even during periods of disruption. By cloud-enabling vendor management systems, retailers can also notify their supply chain partners of localized preferences to allow adjustments further up the inventory pipeline.

Retailers can additionally notify customers of when a desired product has started moving along the supply chain and a due date of when it will be available for pick-up or delivery.

Of course, the ultimate objective is to not only arrive at this type of information, but to also automate the necessary actions and corrections, thereby increasing speed-of-execution, accuracy and transparency!

"In a time of product shortages and uncertainty, having this type of accurate capability that can be shared with the customer becomes even more of a competitive differentiator, and ultimately builds trust," stated Vollbracht.

CLOUD COMPUTING — THE TECHNICAL ADVANTAGE

Cloud-based ERP platforms offer a number of benefits compared to platforms running on traditional, physical infrastructure. The cloud works on an elastic computing model, meaning a retailer can scale usage up and down as needed, to handle the influx of data or demand signals that may accompany a disruptive event. The flexibility of a genuine cloud suite is that it enables retailers to seamlessly connect all the necessary enterprise functions — such as warehousing, manufacturing, and loyalty.

Cloud computing also enables true extended transparency across all of a retailer's enterprise stakeholders and partners, because of the built-in security and permission layers. If a retailer and its partners are all creating data throughout an extended supply chain, and this data needs to be trusted by all supply chain participants, a retailer can turn to blockchain, which establishes a distributed ledger of this data, and creates immutable records based on agreed-to events. In effect, blockchain certifies the origins of all data and combines all data paths into a single version of the truth. Blockchain isn't always the answer. In certain cases, a retailer can simply expose the sections of their cloud platform that are relevant to a specific stakeholder or partner and create a portal that enables a free and transparent exchange of information. Furthermore, the cloud delivers all of this enhanced technical capability at a reduced cost.

"In addition to removing the need for installing and maintaining expensive mainframe servers, cloud technology is instantly and remotely upgraded as soon as new features are available," explained Vollbracht. "This guarantees continuity, eliminates obsolescence and removes the need for 'rip and replace' systems implementations. Moving to the cloud is the last upgrade a retailer will every have to make!"

CONCLUSION

Disruption is inevitable for today's retailers. No matter how sophisticated your predictive analytics are, there will be

CASE STUDY

Stitch Fix Delivers End-to-End Connections with Oracle Cloud

Stitch Fix, a global fashion retailer providing online personalized styling via proprietary technology, removed manual processes and achieved full enterprise connectivity by shifting to entirely cloud-based operations using the Oracle Integration Cloud, Oracle Business Intelligence Cloud Service, Oracle ERP Cloud, and Oracle Java Cloud Service.

Leveraging Oracle as its cloud-based ERP platform, Stitch Fix leverages real-time data, analytics, and reporting to gain deeper understanding of customers and transactions. Stitch Fix also connects procurement, financial processes, and systems. As a result, the company has reduced resource hours required to manually extract and prepare the data for consumption by 25% and achieved multicurrency capabilities to support international expansion. Stitch Fix has also improved decision-making and predictive analytics capability with its real-time data, reporting, and analytics tools.

Office Depot Mexico Improves Customer Engagement with Inventory Transparency

Office Depot Mexico leverages the Oracle Retail Merchandising System, Store Inventory Management and Xstore Point-of-Service solutions to bolster merchandising accuracy by increasing visibility into the movement of every product across its omnichannel operations.

As part of a broader digital transformation strategy, the Latin American office products retailer has also leveraged Oracle Retail modules to improve the engagement and experience of its customers. By marrying the data from its new ERP systems with the Oracle Retail Insights and Customer Engagement CRM applications, Office Depot Mexico gains a deeper understanding of each customer and is better able to engage them through relevant, timely offers and in-store interactions tailored to their unique needs, preferences, and consumption habits.

sudden, unexpected incidents that threaten to overwhelm your ability to engage customers and fulfill demand. However, by implementing a cloud-based enterprise platform, retailers can create transparent and dynamic supply chains with visibility from source to shelf.

Leveraging the cloud's inherent interoperability and flexibility, retailers can then link demand signals to their customer loyalty and store-level inventory systems to create an organization built around anticipating and meeting the needs of individual customers in a manner of their convenience, especially important during times of unpredictability and extreme demand surges.

THE ORACLE ADVANTAGE
Retail today is about connecting with shoppers, and today's shoppers have high expectations. They're informed, time-strapped and connected, and have no problem switching brands for a better experience.

Every touchpoint you have with your consumer — online and offline — is an opportunity to deliver seamless, exceptional service, and to delight and deepen the relationship between brand and shopper. It's critical to foster trust and transparency to build brand loyalty, and prevent brand-switching and transactional relationships.

Delivering outstanding omni-channel experiences is more than just having a great supply chain, and broader than having an intuitive app or e-commerce site. To be successful as a modern retailer, you have to be able to transcend traditional silos and disciplines, by harmonizing and aligning your major retail processes.

Underneath these processes, you require robust, modern, flexible technology solutions, that allow your organization to not only bring these processes together, but also provide you with the ability to quickly, efficiently evolve your business to adapt to the challenging retail landscape — and meet the needs of today's shopper.

With an integrated suite of Oracle Cloud Services that combines reliability, security, cost savings, seamless interoperability, and embedded machine learning and AI, you can shift focus from maintaining current systems to designing omnichannel journeys of the future.

Managing your retail supply chain effectively can mean the difference between omni-channel supply chain success and failure. Oracle supply chain management solutions empower retailers to plan and execute management strategies and anticipate consumer demand across selling channels and stores.

To learn more about how Oracle Supply Chain Management Cloud can help your business, visit oracle.com/scm