

By Elliot Maras

CLOUD TECHNOLOGY BRINGS NEW EFFICIENCIES TO SUPPLY CHAINS

Users cite improved economy, scalability, ease of upgrades and enhanced competitiveness when they move to the cloud

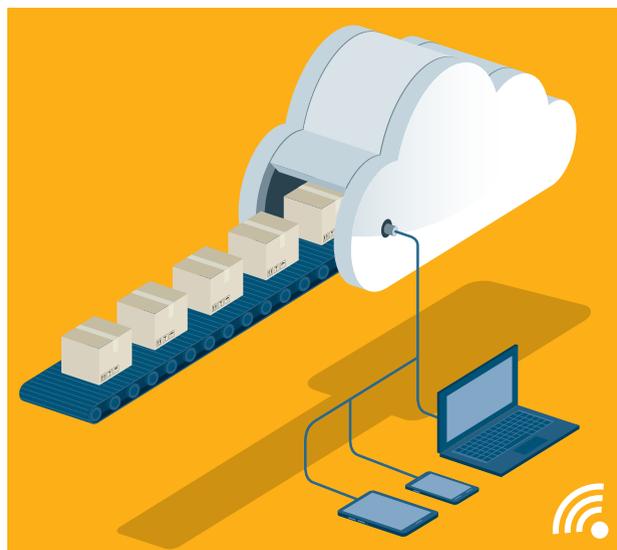
In 2015, Infor's acquisition of GT Nexus for \$675 million signaled the rising importance of cloud technology in supply chain management. In acquiring the GT Nexus cloud chain platform, the enterprise software provider realized that the collaborative nature of contract manufacturing calls for faster coordination of design, manufacturing and shipping, which cloud technology can uniquely manage.

Enterprise software's migration to the cloud foreshadows a supply chain driven by robust scalability, reduced costs, improved versatility and faster access to critical data, all of which enhance a company's competitiveness.

The cloud, with its ease of adoption, permits companies to manufacture, distribute and launch products faster, says Jason Tham, CEO of Nulogy Corporation, a provider of cloud-based solutions for contract manufacturers, packagers, third-party logistic providers (3PLs) and brands. Tham says

cloud technology is supporting the rising demand for mass customization, whereby manufacturers want to cater to local tastes. "Producing closer to the point of consumption is something a brand wants to do, not only to reduce costs, but also to ensure speed to market despite the complex supply chain processes involved in mass customization," he says. "Cloud is certainly an enabler for this."

Consumer packaged goods (CPG) companies are outsourcing contract packaging in their distribution centers (DCs), requiring contract packagers to deploy assets and software in their DCs. Cloud technology is a critical enabler, says Johan Pot, senior vice president of sales and marketing at Crescent, a contract packager. "The ability to bring these sites up quickly, seamlessly, on the same platform, and not having to invest in hardware,



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Johan Pot, Crescent

additional servers and equipment, makes a huge difference,” says the Nulogy customer.

Cloud technology is also lowering deployment costs for manufacturing execution system (MES) software, giving smaller companies access to MESs for the first time, says Srivats Ramaswami, CTO at MES provider 42Q. Deployments can be achieved in six weeks rather than several months.

HOW LONG WILL IT TAKE?

What’s uncertain, however, is how long this transition to cloud technology may take, given the natural resistance to change, and lingering questions about the technology’s reliability, security and integration with legacy systems. The cloud changes the business model in that the user does not own the hardware.

While the cloud touts faster integration of software silos as one of its benefits, the integration can present challenges for companies that rely on more traditional on-premise systems.

Legacy users already invested significantly in on-premise systems. Many view the cloud as insecure and prone to hacking. Some are concerned about possible problems with partner integration. And because subscription applications are accessed via the Internet, some also worry about insufficient response times for high-volume data applications such as warehouse management systems.

CLOUD MAKES HEADWAY

Cloud technology is increasingly taking hold in enterprise software, including sales, customer relationship management, human resources and enterprise resource planning (ERP), observes Glenn Jones, CTO at Steelwedge, a supply chain planning

software provider. Jones maintains the cloud does not have anywhere near the same traction in supply chain planning, but it holds much potential.

The benefits of the cloud are important to the supply chain since companies use their supply chains to differentiate themselves, Jones notes. “Every supply chain is unique, and hence, the solutions are customized, which makes it harder to maintain. So the good cloud companies are able to allow their customers to have customizations, yet also allow upgrades,” he says.

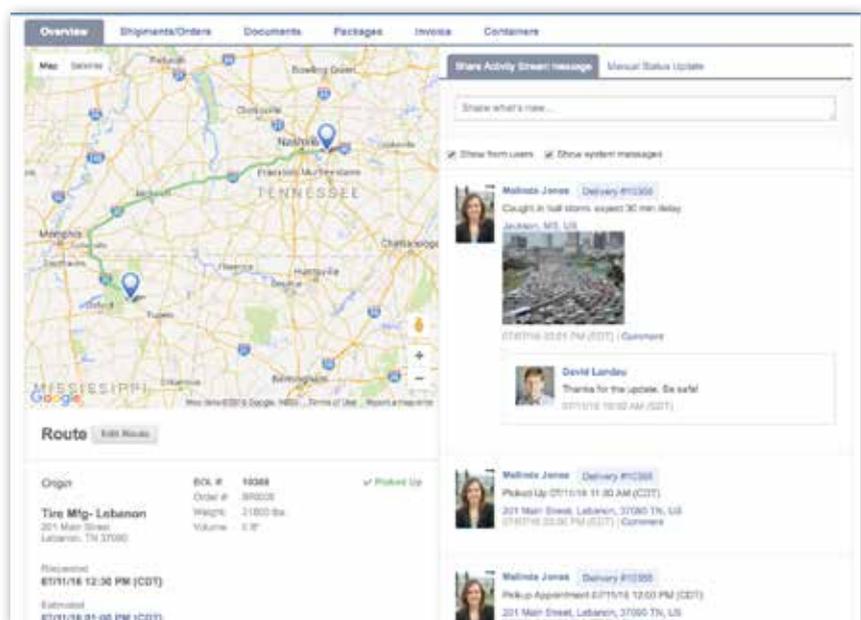
One area where the cloud is making noticeable headway is in transportation management systems (TMSs).

Transervice, a provider of transportation solutions, switched from an on-premise server solution to a cloud-based solution for the efficiency of deployment and the cloud provider’s willingness to customize interfaces. Transervice sends and receives delivery information automatically with its customers. “It’s a lot easier to assimilate

with [customers] in a cloud-based environment than it is to develop a custom integration deal with a partner who is server-based, in terms of both flexibility and making dynamic changes,” says Joe Evangelist, executive vice president at Transervice. “When I can get real-time actionable data captured, it maximizes my ability for on-time delivery.”

As the reliability, security and speed of the Internet improve, the cloud is becoming a better option, says Jerry Robertson, BOLT System CTO and former vice president at Oracle.

BOLT can scale a customer from 50 trucks to 1,000 trucks quickly with no downtime and only a monthly subscription fee for each truck in service. A server-based system designed for 50 trucks does not allow a user to scale up quickly. At the same time, a server-based system built for a large fleet requires a significant investment without offering any flexibility if the system doesn’t meet expectations.



Cloud Logistics' Logistics Activity Stream is the social technology component of TMS.

As ERP providers embrace the cloud, they are pushing cloud technology further into supply chains, Robertson notes. This is important as transportation needs are becoming more complex due to omnichannel expansion fueled by e-commerce.

TMW

Systems, a TMS software provider, recognized the need to move data among systems seamlessly. Hence, the company introduced software-as-a-service (SaaS) versions of its business intelligence solutions. The trend is moving from generating mass amounts of data to being able to actually use the data, says David McKinney, principal of business intelligence and optimization at TMW Systems.

Carrier customers provide lane and rate information that allows TMW Systems to create useful operating metrics. “Bringing all this information into the cloud affords us the opportunity to extend our understanding of the market in real time,” he says. This delivers market dynamics to the customer.

“We’re transforming from a world where only a select handful of people have sophisticated intelligent technology. Now everybody has it,” says Abtin Hamidi, co-founder and executive vice president of Cargo Chief, a freight broker that provides a cloud-based platform for matching shippers and carriers.

Hamidi thinks shippers are no longer going to focus on long-term contracts since capacity is becoming



This driver is using a BOLT app that lists his stops.

accessible more quickly, thanks to the cloud. Long-term contracts provide stable pricing, but it is expensive.

TRANSPORTATION GETS COLLABORATIVE

“Transportation is the most collaborative space in supply chain,” observes David Landau, executive vice president of Cloud Logistics. A centralized carrier portal hosted by Amazon Web Services simplifies a carrier’s interaction with shippers. An on-premise TMS, on the other hand, requires each shipper to maintain its own connectivity with each carrier.

The cloud also allows social media-type messaging to be embedded in the TMS data stream, so personal messages can occur within the stream.

The recent verified gross mass (VGM) requirement for ocean containers under the International Maritime Organization’s Safety of Life at Sea (SOLAS) convention encourages ocean shippers to use cloud-based software. The SOLAS VGM requirement demands that a container’s gross weight be verified before being loading onto a ship.

Several cloud-based systems allow shippers to communicate with

carriers without requiring a separate connection to each carrier.

Bryn Heimbeck, co-founder and president of Trade Tech Inc., a cloud-based logistics software provider, says ocean shippers may find cloud technology brings benefits beyond complying with the new VGM requirement. “With a cloud-based portal, you’re able to gather the shipping data in one place and have the ability to send the data to whoever is required to have it, no matter where they are in the world,” he says.

Rubicon Global Holdings LLC uses cloud-based technology to connect its network of independent waste haulers, allowing each provider the scale needed to compete with national providers. The system is akin to an Uber for waste haulers.

“The cloud allowed us to scale incredibly fast,” says Nate Morris, Rubicon co-founder and CEO. The technology allows the haulers to run the business better and gives customers real-time information.

Rubicon’s data can determine the right amount of service a customer needs, addressing a critical problem in waste hauling—overservicing. **SDC**