

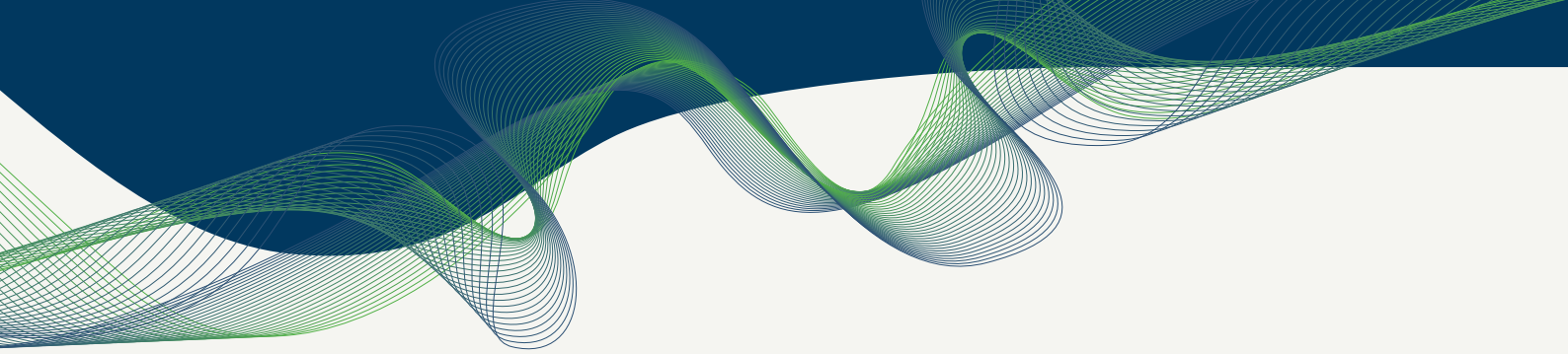


RESEARCH REPORT OCTOBER 2013

SUPPLY CHAIN AND THE FUTURE OF APPLICATIONS

Guy Courtin, Vice President, Research, SCM World

SCM **World**



This document is the result of primary research performed by SCM World. SCM World's methodologies provide for objective, fact-based research and represent the best analysis available at the time of publication. Unless otherwise noted, the entire contents of this publication are copyrighted by SCM World and may not be reproduced, distributed, archived or transmitted in any form or by any means without prior written consent by SCM World.

© 2013 SCM World. All rights reserved.

CONTENTS

EXECUTIVE SUMMARY	4
INTRODUCTION.....	5
THE CLOUD HAS TAKEN HOLD OF APPLICATIONS – BUT WITH CONSUMERS FIRST	5
CLOUD – A BASIC DEFINITION	5
LEGACY APPLICATIONS ARE THE STARTING POINT FOR CLOUD IN SUPPLY CHAIN	6
THE CLOUD BUILDS ON LEGACY SYSTEMS ... AND LAYS THE FOUNDATION FOR SUPPLY CHAIN SOFTWARE EVOLUTION.	7
VISIBILITY BENEFITS, CONNECTIVITY AND THE CLOUD	8
BETTER VISIBILITY IS ABOUT BETTER CONNECTIVITY AND THE GAINS AVAILABLE WITH THE NETWORK EFFECT.....	8
COLLABORATION WORKS BETTER WITH THE CLOUD	9
AS CLOUD GROWS, WHAT SHOULD YOUR PLAN BE FOR SUPPLY CHAIN APPLICATIONS?	12
ASK YOUR CURRENT SOLUTION PROVIDERS ABOUT THEIR CLOUD ROAD MAP	13
CONCLUSION AND RECOMMENDATIONS	14

EXECUTIVE SUMMARY

Supply chain leaders depend on a whole range of software applications to manage their operations and to support initiatives for new growth. Many of these systems have taken years and cost many millions of dollars to install and use. Changes in the way information technology is developed and delivered could affect these systems. In particular, cloud computing looks likely to have an impact.

As consumers, we are surrounded by cloud applications. From accessing email via Yahoo, Gmail or Hotmail, through to relying on the iCloud or iTunes to access photos, music or movies, the cloud has created new business models and released a wave of new opportunities. This new model appears ready to apply to supply chains as well, bringing new considerations to the table both in terms of technology and use cases.

Cloud differs from traditional enterprise software on three main aspects – IaaS (Infrastructure as a service), PaaS (platform as a service) and SaaS (Software as a service), each of which helps cloud-based applications that build on existing legacy systems do more for supply chains. There are two key advantages to cloud:

First, IaaS means the cost of new software can be variable rather than fixed which eases the business case burden in bringing new tools into use. PaaS means custom developers, whether in-house or from consultants, can more quickly and easily create tools or workflows to support unique process requirements. These two factors mean supply chain innovation is easier and faster with cloud-based applications than with traditional systems.

Second, the increased inter-connectedness that the cloud offers can vastly improve visibility and transparency across the end-to-end supply chain through a faster, more reliable and complete communications flow that is found lacking in more traditional methods such as “faxes, phone calls and emails”. This is enabling a network effect in which supply chain processes that benefit from market-like information access (logistics pooling, sourcing, S&OP) improve by bringing more options into view more quickly and at lower cost.

Ultimately, the cloud enhances collaborative frameworks. In addition to on-boarding suppliers faster and more cost-effectively, cloud-enabled businesses can accelerate the benefits that collaboration brings such as issue resolution and faster learning in ways that cannot be achieved through traditional EDI channels and enterprise software systems.

None of this, however, implies that systems need to be overhauled. Most cloud-based applications rest on existing ERP backbones and incremental enhancements to supply chain systems seem to be the most successful in practice. Choosing which point solutions to move to cloud and when to do so depends on weighing where the network effect is most valuable against legitimate concerns about data security and process integrity.

The move to cloud is evolution, not revolution.

INTRODUCTION

Supply chains are by their very nature connected, information-dependent, and undergoing constant change. Most senior supply chain leaders have become accustomed to developing and deploying operational strategies on the back of software applications that are generally legacy systems underpinning specialty bolt-on tools. The result is sometimes clunky and rarely flexible in the face of changing business conditions. The idea of “cloud” based software promises to change this.

What many operational leaders wonder is not really whether this change is beneficial so much as when it may take root and where exactly among the portfolio of applications currently running our supply chains it will first make sense. This report uses a combination of qualitative interviews and data analysis to break the question of cloud applications down with an eye to simplifying the issue for operational leaders.

THE CLOUD HAS TAKEN HOLD OF APPLICATIONS – BUT WITH CONSUMERS FIRST

As consumers, we are surrounded by cloud applications - whether it is accessing email from Yahoo, Gmail or Hotmail or share files on Dropbox. Apple users rely on iCloud to manage their files, or iTunes to find music, movies or television shows and find apps at the AppStore. For consumers, the cloud has already created new business models and unleashed a host of new offerings.

Using the cloud does not stop when we step into the office. We turn to cloud based software from Salesforce.com for our CRM needs or to office apps from Google or Microsoft office 365. A closer look at some data about cloud emphasises the point that cloud looks likely to continue its growth in the near future:

- The mean annual enterprise spend on the cloud is currently \$8.2 million
- Worldwide cloud computing market is forecast to grow at a 36% CAGR through 2016¹
- Predicted market size for cloud technology to grow between \$150 billion to \$200 billion by 2020²

There remains, however, some confusion with what exactly “cloud” means. As recently as 2009, research by the National Institute of Standards and Technology (NIST) identified over 20 different definitions for “cloud.”³ Four years later, confusion persists in the market. Some of this confusion may be intentional. Solution providers weave the cloud into their marketing and business message, often without providing clarity on why it is different and what that difference means to the business user.

CLOUD – A BASIC DEFINITION

A basic technical definition is that the cloud is fundamentally about maximising available computing power. As the NIST defines:

Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can

*be rapidly provisioned and released with minimal management effort or service provider interaction.*⁴

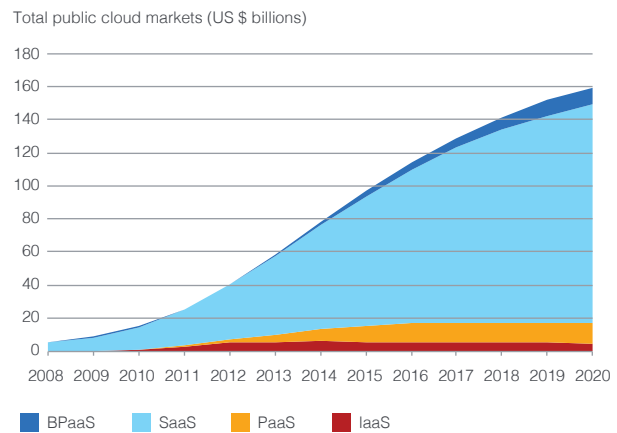
For those concerned with how the cloud affects the applications supporting supply chain, this means there are three main areas of cloud computing that matter:

- **IaaS - Infrastructure as a service.** This allows for the sharing of raw computing power and storage, including such pieces as databases, rules engines, processing power and other infrastructure capabilities. With cloud these can be accessed and leveraged on an “as needed” basis. Similar to the power grid, you pay for what you use. IaaS is what the corporate IT department needs to enable your day-to-day tools to operate with reliable and fast response (solve times, transaction confirmations etc)
- **PaaS - Platform as a service.** This allows developers to access tools to create their own applications. The building blocks are made available by the software vendors to provide a jump start on development.⁵ PaaS is what your supply chain IT support or third party consultants use to create customised workflows or tools specific to your needs.
- **SaaS - Software as a service.** The business process application (“solution” in vendor-speak) layer in the cloud. Users can rent applications on a per use basis to tackle specific business issues. SaaS is what you log on to use without any customisation. Think of Salesforce.com as the most widely known business application.

According to Forrester Research, all three of these areas are expected to continue to grow in the near future:

Figure 1 Cloud expansion

Global public cloud market size, 2011-2020 forecast (\$bn)



For the supply chain functional user, cloud is simply a new way of layering information systems into the design of material, financial and transactional flows that govern operations. The difference in technology is real and important. Rarely, however, can these technical advantages be applied in a clean slate supply chain design. Reality is that almost all cloud applications must sit on an existing application environment.

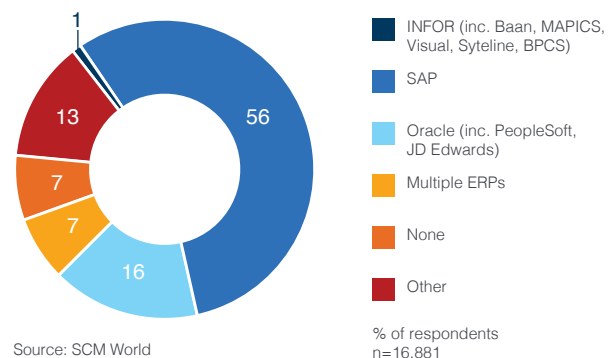
LEGACY APPLICATIONS ARE THE STARTING POINT FOR CLOUD IN SUPPLY CHAIN

The original question posed by our Executive Advisory Board around the cloud was focused on where the existing software running today's supply chain was headed. More than half our members run on SAP, with another 16% using Oracle, and the rest divided among the likes of Infor, QAD or multiple systems. Only 7% say that they did not have an ERP system at all.

In most cases these ERP foundations were built over many years and at the cost of tens or even hundreds of millions of dollars. Degrees of satisfaction with these ERP foundations vary, but most are operating effectively and users will generally attest to a strong 'system of

record' function as well as solid business process applications in many specific areas of supply chain.

Figure 2 ERP Systems used by SCM World members



Layered on top of these systems is a mix of 'bolt-on' software applications. Specialty tools including transportation systems (TMS), warehouse management systems (WMS), planning engines, sourcing and procurement, payment systems, labour optimisation, inventory management, supply chain simulation and more. These solutions are often provided by the aforementioned ERP players as well as by a host of best of breed companies such as JDA, Manhattan Associates, Descartes, Logility, Toolsgroup, Terra Technologies, Kinaxis, Steelwedge, E2Open, Elemica, One Network, Logfire, Llamasoft, HighJump, Amber Road, Quintiq,

Kewill, and GT Nexus to name a few. Finally, there is a mix of legacy systems from the likes of i2 Technologies or Manugistics, as well as dozens of home grown applications and, of course, thousands of spreadsheets.

Much of this software has been developed and deployed in layers and is generally hard to modify in response to changing business conditions. It is also a large sunk cost still earning back its return on investment. As such, any use of cloud, whatever its merits, must work on top of the legacy systems.

THE CLOUD BUILDS ON LEGACY SYSTEMS ... AND LAYS THE FOUNDATION FOR SUPPLY CHAIN SOFTWARE EVOLUTION.

Cloud solutions can overcome these limitations by addressing the following:

- **Cost** – Companies are often looking to shift the cost of systems from a capital expenditure to an operating expenditure. Many also do not have the appetite to take on large IT projects where they have to absorb and maintain large hardware investments or invest time and treasure into lengthy software deployments. The cloud offers a shift to a pay-as-you-go or a rental model. Herein lies the main benefit of Infrastructure as a service (IaaS).
- **IT resource allocation** – IT departments are under growing strain from both a financial and human resource perspective. Companies continue to lean on their IT departments to do more with less. Reality is, IT departments are focused on maintenance of existing systems and infrastructure and only allocate, on average, about 11% of their budget to new applications.⁶ To address specific business needs, and not be regarded as a roadblock, IT departments have to find other means to satisfy the business units' requirements. Leveraging the cloud allows business units to get the solutions they seek while shifting any potential service and maintenance issues away from your IT department. Herein lies the main benefit of Platform as a service (PaaS).

- **Flexibility of access afforded via the cloud** – More than just the lower cost of ownership and the ability to ease the pressure on IT departments, leveraging cloud-based applications grants its users a greater flexibility when it comes to providing access whether inter-departmental or with partners outside the four walls of the enterprise. Cloud applications allow flexibility with regards to the expansion of one's supply chain network. Herein lies the main benefit of Software as a service (SaaS).

These characteristics make cloud applications much more accessible for supply chain process enhancements than traditional software applications. As a result, cloud looks like a better basis for innovation in supply chain design than traditional software.

The next essential question is whether cloud applications are functionally different in any meaningful way from traditional software applications for supply chain uses. The answer is yes, but the differences are subtle.

VISIBILITY BENEFITS, CONNECTIVITY AND THE CLOUD

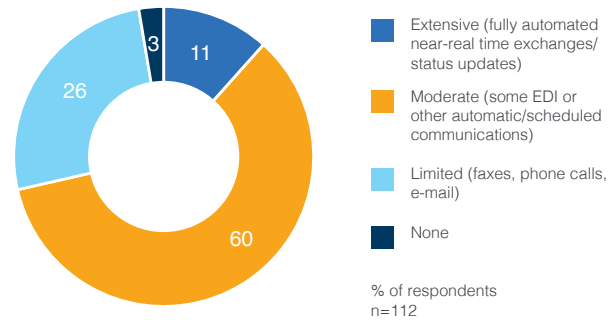
The Limited is a large apparel retailer based in the Midwest of the United States. Their CIO recognised that he could only get sales information to the business units, at best, one week after the fact. While the data had a high degree of accuracy – sales results, inventory positions, promotions to name a few – the data was stale. The visibility they had was on historic events that fell outside the time threshold necessary to adjust their supply chain. This lack of timely visibility made it impossible to manage the supply chain with enough agility to react to market shifts. The root cause was software that was ill-suited to the need for instantaneous visibility to demand. This is a classic situation in which cloud can make a difference for supply chain.

Being able to have a clear picture of your end-to-end supply chain is really about faster, reliable and more complete communications with your extended supply chain. Supply chain applications have looked to provide such connectivity in the past, but have fallen short. In fact, according to our research only 12% have what we would call “extensive” communications with their network, while over a quarter are still relying on emails, phone calls and faxes.

As an example of the transition, consider Caterpillar. Prior to upgrading their connectivity technology,

Figure 3 Communication gaps

Collaborative execution with global trading partners



Source: SCM World Survey, June 2013

Caterpillar was managing a multi-billion dollar business through “emails, faxes and phone calls,” according to Doug Gray, General Manager of international transportation operations for Caterpillar. Using these antiquated technologies could not provide Caterpillar with the necessary tools to coordinate the complex orchestration of delivering and receiving their machinery. Caterpillar leveraged GT Nexus to create a platform for all the carriers in their network to send their EDI messages. This vastly improved visibility across Caterpillar’s \$500million per day of in-transit inventory.

BETTER VISIBILITY IS ABOUT BETTER CONNECTIVITY AND THE GAINS AVAILABLE WITH THE NETWORK EFFECT

The pony express, the telegraph and the telephone were revolutionary means of communications in their time. But they were really limited to point-to-point communications. In the mid-1990s, the internet opened a new era of communications. Supply chains at the time were largely still operating in a point-to-point communications mode with EDI and other hard-wired connections supporting demand-supply information flow.

The decade ended with a burst of innovation meant to access the power of the internet (a marketplace of trading partners, all universally visible and ready to do business) with what were then called “B2B” exchanges, including industry sponsored efforts like WWRE in retail and Exostar in aerospace. Some of these early pioneers have survived and thrived including E2Open in high tech and Elemica in Chemicals as well as Exostar. The

ideas they developed are continuing to evolve as user bases add new members. These success stories stand today as examples of how the cloud taps a vital and unique advantage over traditional software applications – the network effect.

The cloud allows for connections to be made and maintained without large capital expenses in technology or long set up times. Of course this requires standards to be adhered to but, once the standards and rules are agreed upon, the cost of adding another node is relatively inexpensive. With a standardised and unified platform, one can expect an improvement in the frequency of communication and overall quality of the information.

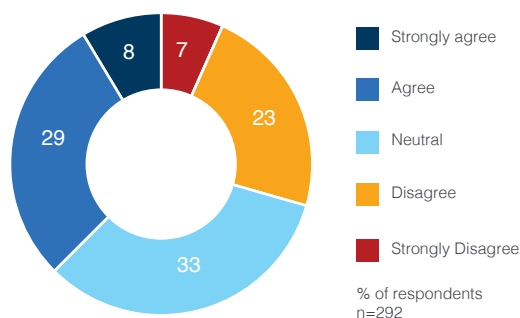
Take mobile giant Vodafone, for example. In order to service their 400 million customers, 50 partners in over

30 countries, they had to ensure a robust and unified system to manage this supply chain. Being able to create a simple, yet powerful network via the cloud powered by E2Open, they were able to have a network where both internal and external processes could be streamlined. By tying their expansive supply chain into one platform, the efficiency of the network was able to deliver huge savings. According to Detlef Schultz, Group Supply Chain Management Director and CEO of Vodafone Procurement Company: “By automating key business processes as part of a comprehensive supply chain strategy, we have been able to eliminate redundancies and more quickly meet transactional goals.” The network effect in this case brought market-like supply visibility to Vodafone with instantaneous access to sourcing options resulting in huge savings.

COLLABORATION WORKS BETTER WITH THE CLOUD

In research we conducted on supply chain collaboration (see Collaborative Execution report), less than 30% of our 374 respondents claimed that they had no problems “connecting or on-boarding new trade partners.”⁷ The balance obviously faced some degree of cost or time hurdles in bringing new trading partners into an electronically connected supply chain. The network effect cannot be exploited if the connections cannot be made, but the cloud helps here.

Figure 4 Connecting or on-boarding new trading partners to our trade information flow is a problem



Source: SCM World Survey, March 2012

An example is Konecranes, who created a cloud-based platform on E2open to allow communications with their 65,000 suppliers across their supply chain. Not only can they communicate more readily with their network, but according to Pekka Lettijeffer, Former Chief Supply Chain Officer at Konecranes, it now takes only “4 hours of work to get a supplier up and running,” onto the network. On-boarding a supplier at such low cost and with such speed would be impossible with EDI and impractical as an extension of traditional enterprise software systems. Cloud makes on-boarding dramatically easier, something attested to by supply chains as diverse as Amgen, Jabil and Blackberry, all of whom have used Kinaxis effectively to do supply chain planning in the cloud, or Del Monte who has had great success with collaboration based on One Network.

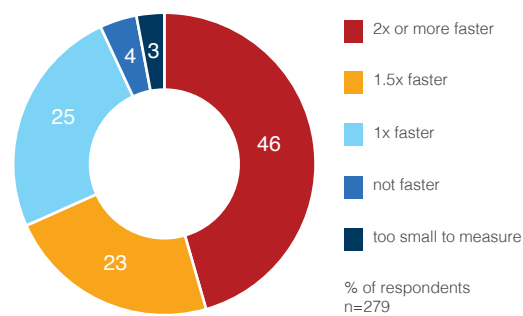
Another common example of collaboration is the pooling of transportation resources. Nike and Adidas are fierce rivals in the sports equipment business, yet they realise that sharing shipping data with their common carrier will benefit all parties. Their logistics provider DHL can better consolidate and organise shipments from manufacturing centres, while Adidas and Nike get cost

savings. The cloud allows for easier sharing of this basic shipping information without exposing competitively sensitive information.

The impact of greater collaboration is clear - supply chain problems can be resolved faster. Almost half of our respondents stated that better supply chain collaboration allowed problems to be solved twice as fast.⁸ Collaboration need not depend on the cloud to work, but with greater visibility, more trading partners to work with and minimal incremental cost to access these options, cloud is a key ingredient to large scale collaboration in supply chain.

Figure 5 Faster problem solving

Rate at which collaborative execution can resolve problems more quickly



Source: SCM World Survey, March 2012

The Cloud makes L’Oreal’s supplier network prettier

L’Oreal’s aggressive objective is to gain 1 billion new customers over the next decade. To achieve this audacious goal as well as maintain their market leadership, L’Oreal’s supply chains must constantly strive for greater efficiencies as well as enhanced responsiveness.

L’Oreal recognised that one pillar they need to focus on to meet their supply chain goals is to “ensure responsiveness.” What makes up responsiveness? One key aspect is the ability for L’Oreal’s suppliers to be better able to meet their demands but also for L’Oreal to have greater visibility into the available capacity of the supplier network. For L’Oreal this was all about including the widest network into their S&OP process. The only way to achieve this was to create a two-way street of communications between L’Oreal and their supplier network. But this was only achievable by moving to a cloud-based collaboration platform, powered by E2Open, and leaning on the existing SAP infrastructure. L’Oreal calls this initiative SESAMe – Solution for eSupply Applications for Manufacturing.

SESAMe was the natural evolution from the traditional collaborative methods used by L’Oreal – EDI messages. The first step for better responsiveness was for L’Oreal to provide their key suppliers with visibility into their long/medium/short-term supply requirements. These were broken down into 12 month, 3 month and 3 week plans, shared with their suppliers via point-to-point EDI messages. The limitations are obvious – one way, one-to-one communications. L’Oreal could feed the suppliers their requirements but had no visibility into the overall network’s capacity to meet these demands. In addition, the system was neither flexible nor robust enough to keep up with the speed and complexity of their supplier and customer networks. With close to 2000 suppliers, and certain time horizons being measured in weeks, L’Oreal could not respond to their consumer demands by having to update their vast supplier network on a weekly basis. This is where the SESAMe initiative came to fruition.

Being able to leverage a cloud-based collaborative portal, L’Oreal was able to take full advantage of the network effect. Suppliers could tap into one unified cloud platform to access L’Oreal’s order messages. The suppliers can then communicate their capacity availability back to L’Oreal. This two-way communication allows L’Oreal to better understand where there might be exceptions between their plans and the ability of their supplier network to service their needs. L’Oreal also updates delivery releases and confirmations via the platform to provide value added information – in the appropriate time – to their network.

The ability of L’Oreal to include their vast network of suppliers into their S&OP process and tie them together on a cloud-based platform greatly enhances the supply chain’s responsiveness. No longer does L’Oreal have to individually update their suppliers on a weekly basis – a process clearly fraught with major pitfalls. Now L’Oreal can update the cloud-based platform on an as-needed basis and allow their network to get updates at the speed of business.

For L’Oreal the benefits are three-fold:

- **Productivity:** the greater visibility allows for greater efficiencies when it comes to production. Having a better understanding of capacity availability ensures L’Oreal can do a better job when it comes to execution
- **Reactivity:** being able to more rapidly identify the exceptions between plan and capacity allows L’Oreal to be more responsive to strains and changes in their supply chain
- **Talent retention:** an interesting benefit for L’Oreal is retention of supply chain talent. Providing better tools to solve the complex problems of supply chain also means the people dealing with these issues are more likely to hang around – they have better tools with which to work

For L’Oreal, it was clear that the traditional point-to-point EDI exchange had limitations. The only way to truly achieve greater connectivity – and with that visibility, ensure enhanced reactivity in the supply chain – was to create a platform that was flexible enough to encompass their vast network and facilitate a two-way communication between the suppliers and L’Oreal. The most efficient and sensible way for L’Oreal to accomplish this was via cloud applications.

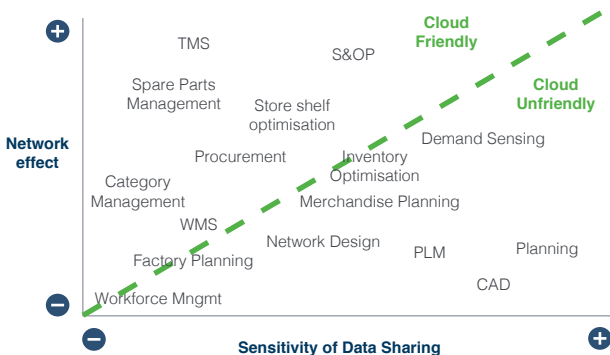
AS CLOUD GROWS, WHAT SHOULD YOUR PLAN BE FOR SUPPLY CHAIN APPLICATIONS?

Recognising that appetites for big, expensive software deployments are non-existent, supply chain strategists must look elsewhere for technology-enabled innovation in their operations. Cloud is at least part of the answer.

Its advantages in cost, time and access are meaningfully different from traditional systems. This includes any rollout of specialty modules already bought and paid for along with big ERP deals long since done. It is clearly possible to enable a faster, better supply chain with cloud applications.

The unknowns, however, which include maintenance of data security and process stability with much larger collaborative trading partner bases, are also relevant. Massive visibility has advantages, to be sure, but control and precision could suffer along the way as we learn what this network effect means at scale.

Figure 6 Supply chain in the cloud: where to start



To identify where cloud may offer a quick, impactful advance in supply chain capabilities, it may help to consider the graphic above which casts specific point solutions against two essential decision dimensions:

- **Value of the network effect** - How much would the functionality in question benefit from the network effect? Not all supply chain functions need to be exposed to the network, while others would greatly benefit from the network effect. For example, having all suppliers connected on a transportation hub is highly efficient for management of costs

and resources. But having a large number of suppliers tied into the product design process is not necessarily ideal.

- **Sensitivity of data sharing** - What level of security and sensitivity do you place on the specific data? Some data is more sensitive than others. What kind of data does the function in question require? The perception may be that certain data is too sensitive to be exposed to the cloud. Sharing your shipping data of finished goods is not as sensitive as the specs for the new product line that is in R&D.

The network effect is maximised for functions that are best served when a large number of suppliers and/or customers benefit from rapid access to information that can streamline business. Lenovo's efforts towards achieving perfect order fulfillment are a prime example. Working with SAP and Steelwedge, Lenovo was able to achieve a high degree of transparency of their data which fostered greater collaboration among their network. The level of collaboration achieved, "exceeded all expectation," according to Sandra Wellet, Vice President of EMEA Supply Chain for Lenovo.

Logistics is another functional area that can greatly benefit from the network effect. For example, Safeway turned to One Network to help create a single platform for manufacturing and retail. This allowed Safeway to work with their suppliers and distributors to create a streamlined and centralised transportation and appointment scheduling system. Safeway's suppliers can ensure they are scheduling and delivering via this cloud-enabled platform while Safeway ensures higher stock levels. Leveraging the cloud platform reduces the amount of redundancies, errors and streamlines the process between Safeway and its suppliers.

The ability to leverage the network effect is not limited to the transportation part of logistics. Take, for example, Corona SA from Chile, who opted to lean on a cloud-based WMS solution from Logfire to ensure the flexibility needed to keep up with their growth strategy in Latin America. According to their CEO Cristian Fuenzalida Churchill, the cloud platform for WMS allows access to

rapid upgrades necessary to keep up with their planned double digit growth. The flexibility of the cloud-based WMS solution will give Corona SA the flexibility to grow and expand their network as need be.

These examples all have a common thread: the more suppliers and partners that are part of the network, the greater the business benefits that are realised by all; and the data being shared is not highly sensitive.

ASK YOUR CURRENT SOLUTION PROVIDERS ABOUT THEIR CLOUD ROAD MAP

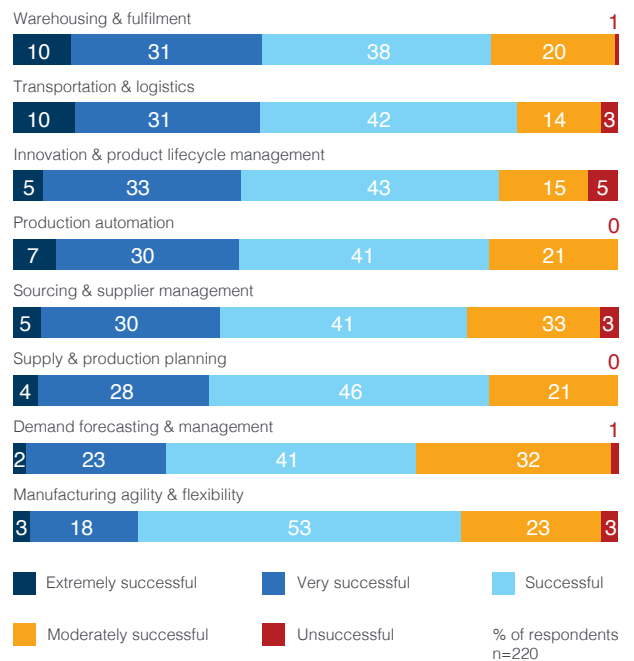
You might be surprised to learn the answer. It is rare to find a solution provider that does not have some dedicated resources for the cloud. Traditional software providers such as SAP and JDA have substantial personnel and investments in the cloud. For example, JDA has over 15 data centres globally to support their cloud strategy. Discuss with your existing technology providers what their view is on the cloud, many such as Logility and Manhattan offer both cloud and on-premise offerings of their solutions. While others such as Kinaxis, One Network and Steelwedge, to name a few, are migrating to a full cloud-based offering. Ensure that the cloud technology you look into can co-exist with your current infrastructure and legacy technologies.

Of course one of the benefits of cloud applications is that they should be able to layer seamlessly on top of your existing infrastructure. Del Monte looked to layer a cloud offering on top of their existing ERP and legacy systems to tie together these disparate and vital systems and provide greater visibility into their supply chain network.

As our research has shown, technology software providers have earned a level of trust when it comes to providing solutions for your business needs. This holds true for your cloud needs.

Figure 7 The tech effect

Where technology providers have contributed to business success



Source: SCM World survey, February 2013

CONCLUSION AND RECOMMENDATIONS

Cloud is a real change in the world of supply chain applications. Its unique characteristics include a variable cost structure, quick rollout and easy access by entities outside the four walls of the organisation. These elements make a network effect possible that can tap new efficiencies in supply chain collaboration for sourcing, logistics management, sales and operations planning and more. The benefits of this network effect differ according to which specific tools are being considered as point solutions to process problems.

There are also advantages to the cloud in terms of opening the door for technology-enabled supply chain innovation that arise because of the way IT departments operate. Big, capital projects are a hard sell, but quick cloud-based deployments less so. Supply chain initiatives that depend on external trading partners in particular are cloud-friendly.

Unknowns, however, include some concerns about data security and process integrity. Experience with cloud in supply chain is still too limited to know whether or where these worries are justified, so caution makes sense.

Software providers across the spectrum have plans for the cloud. Pure cloud vendors are often very experienced with deployments on an existing ERP foundation and can be turned to for ideas on how to get more out of existing systems. Legacy vendors, especially SAP and Oracle, have more than sufficient knowledge to help navigate where and when to look outside for potential cloud-based bolt-ons, although their incentive is to sell their own applications of course.

On balance, the movement to cloud seems less fraught with downside than replete with opportunity. There is little reason to hesitate with cloud strategies in supply chain.

REFERENCES

- ¹ "Predicting Enterprise Cloud Computing Growth." Forbes, September 4, 2013
- ² Based on Forrester Research, "Sizing the Cloud," 2011 and Gartner, "Forecast Overview: Public Cloud Services Worldwide 2011 – 2016 4Q12 update," February 2013.
- ³ "A Break in the Clouds: Towards a Cloud Definition." Vaqueiro, Rodero-Merino, Caceres and Linder. January 2009
- ⁴ "The NIST Definition of Cloud Computing Recommendations of the National Institute of Standards and Technology," NIST by Peter Mell and Timothy Grance September 2011
- ⁵ On caveat, when it comes to the technology of cloud PaaS is all about the development platform created via the cloud for those looking to create their own applications. When it comes to the supply chain and we discuss the creation of platforms we are discussing an environment where data and rules can be accessed and leveraged on one unified platform.
- ⁶ Harvard Business Review, "What Every CEO Needs to know about the Cloud." November 2011.
- ⁷ Data from SCM World, "Collaborative Execution Survey." 2012
- ⁸ From SCM World, "Collaborative Execution Survey." 2012



ABOUT SCM WORLD

SCM World is the leading global community of senior supply chain professionals. Harnessing the collective brainpower of the most forward-thinking practitioners from the world's foremost companies, SCM World accelerates learning for supply chain leaders and their rising stars.

SCM World offers a dynamic content agenda of practitioner-driven webinars, research projects, data insights, peer exchanges and events. This programme

brings a structure to the process of identifying, disseminating and implementing innovative cross-industry practices, aligned against internal learning priorities and strategic objectives.

Over 150 companies participate in and contribute to the SCM World community, including P&G, General Mills, Nestlé, Samsung, Lenovo, Nike, Walgreens, Merck, Jaguar Land Rover, Raytheon, Chevron, BASF, GlaxoSmithKline, Intel and AT&T.

www.scmworld.com

For more information about our research programme, contact:

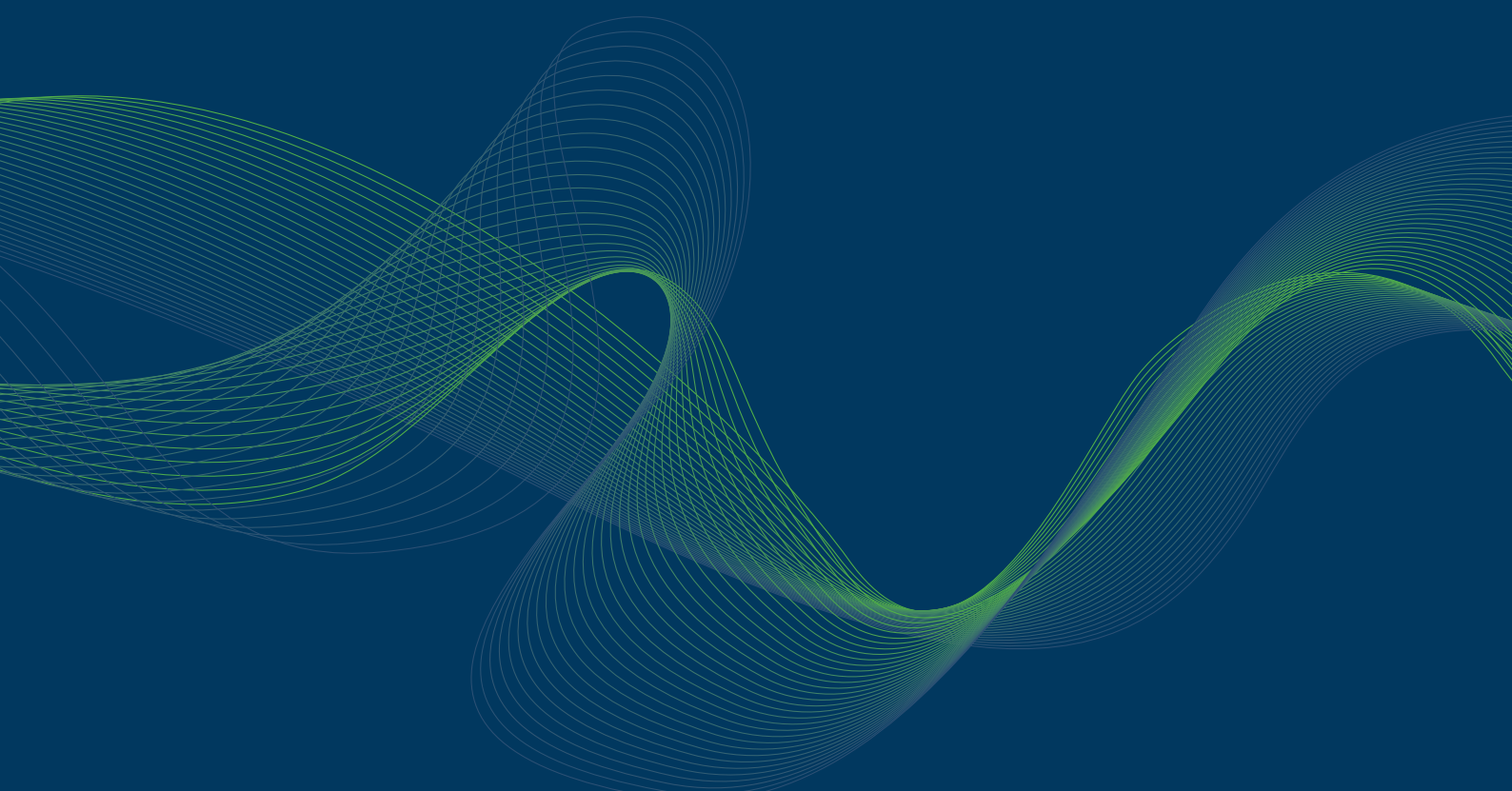
Geraint John

Senior Vice President, Research

+44 (0) 20 3747 6200

geraint.john@scmworld.com

SCM **World**



SCM **World**

2 London Bridge
London SE1 9RA
United Kingdom

+44 (0) 20 3747 6200
www.scmworld.com