IDC PERSPECTIVE

WMS in the Cloud

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EXECUTIVE SNAPSHOT

FIGURE 1

Executive Snapshot: WMS in the Cloud

This IDC Perspective takes a look at the trends and the market relative to warehouse management systems (WMS) in the cloud. The need for scalable, flexible, and cost-effective WMS applications has led manufacturers to increasingly consider cloud-based applications as an option and has driven application developers to focus on delivering cloud applications with the functionality demanded in the market.

Key Takeaways

- The increasing adoption of cloud-based WMS applications is a function of market readiness, application availability, and application maturity.
- Cloud-based WMS offers a level of scalability that is not possible with traditional on-premise WMS deployments.
- Beyond the often lower cost per seat for a cloud application, cloud-based WMS applications help reduce infrastructure costs and enable the reallocation of existing IT resources to drive productivity improvements.

Recommended Actions

- Assess the current state of your WMS applications. Does your current application have the capability to scale and support the future needs of the business?
- Look outside of the box. Cloud-based applications are shaking up the WMS application landscape with scalability, flexibility, and cost savings.
- Prepare for the future. Create a future state vision and road map for how you will get there. Ensure that your WMS is capable of meeting the needs of your business today and into the future.
- Do your due diligence. The market for WMS is robust; be selective and find a vendor that will grow with your business in terms of both functionality and strategy.

Source: IDC, 2016
Overview

This IDC Perspective takes a look at the increasing appeal of warehouse management systems (WMS) in the cloud for the manufacturing and retail industries. As application vendors increasingly deliver full-featured WMS applications on the cloud, we are congruently seeing businesses accept and adopt cloud deployments of WMS. Over time, the feature set cloud-based WMS applications has transitioned from "lite" versions of the on-premise application to full-featured enterprise-level applications that now compete head to head on functionality with on-premise options.

The market for warehouse management systems in the cloud continues to grow largely on the back of three key drivers:

- **End-user acceptance:** Many companies now understand the value of leveraging cloud-based applications, especially WMS. Cloud-based applications offer a level of scalability and flexibility that is not necessarily available with on-premise deployments. In addition, the cost factor weighs in here as cloud-based deployments eliminate the need for a massive in-house IT architecture to support which helps bring down the capital investment and time to go live required to attain the modern application functionality of current WMS applications. These points are helping drive end-user acceptance of cloud-based WMS applications. In addition, in-house IT resources have become a constraint, mostly in the SMB space, where IT staff can be better utilized in other areas while taking on less responsibility related to the management of cloud-based applications.

- **Application development and maturity:** As demand for cloud-based applications has steadily increased, application vendors have increasingly invested in developing products that are capable of either cloud deployment or native cloud applications. As vendors continue to increase their commitment to delivering cloud-based WMS applications, they have increased the functionality, with many cloud WMS applications on par with their on-premise brethren, which is pushing users to consider cloud WMS as an alternative to on-premise WMS.

- **WMS application and hardware life cycle:** As the market evolves and technology improves, the features and functions of the applications must naturally evolve as well. Many of the companies that purchased WMS applications 15-20 years ago are coming up on the decision to upgrade or replace outdated applications and the hardware their systems are running on. As this occurs, these companies are looking at cloud as an alternative as they now offer the same level of functionality but with the added benefit of having the vendor manage upgrades, which will extend the life cycle of cloud application as the product is improved over time without the requirement of purchasing and upgrading on-premise hardware.

IDC forecasts the worldwide market for WMS applications in manufacturing and retail to grow at a CAGR of 6.47% through 2019 to reach a global market value in excess of $1.32 billion by 2019 with roughly 62% of the global market in manufacturing and 38% of the global market in retail (see Figure 2).
The global market for WMS in manufacturing and retail is highly concentrated in the United States, where 57% of the spending took place in 2015, with an additional 17.8% and 16.2% of spend coming from Western Europe and Asia/Pacific, respectively (see Figure 3). The distribution of the WMS market globally will most certainly play a role in growth of cloud-based WMS applications. The United States and Western Europe are mature markets where internet connectivity is both ubiquitous and quite reliable. In addition, there are large components of Asia/Pacific (China and Japan) where the internet is readily available and reliable as well. Availability and reliability are key factors in growth and adoption of cloud-based WMS applications as without the reliability, cloud applications are not an effective tool for the business-critical nature of WMS.
WMS plays a key role in the manufacturing and retail supply chains, and therefore, companies rely on these applications to ensure efficient operations. In the past, critical business applications, such as WMS, were often considered too risky to move to the cloud as the risk of business interruption due to slower and unreliable internet was much higher than it is today. However, over the past several years, the availability, speed, and reliability of internet service has drastically improved, helping significantly reduce such risk which has helped drive acceptance and adoption of cloud-based WMS applications.

Indeed, the cloud has grown in its appeal for critical business applications such as WMS, and IDC expects to see much more rapid growth relative to cloud-based supply chain applications compared with on-premise deployments (see Table 1). Granted, the installed base of existing cloud-based WMS applications remains much smaller than that of existing on-premise deployments, which is helping drive the accelerated pace of adoption of cloud compared with on-premise. But regardless, the market has shown a propensity to adopt WMS in the cloud, as our 2016 Supply Chain Survey found that 16% of respondents were already using a cloud-based WMS and another 25% have plans to have a cloud WMS within the next 12 months.
### TABLE 1

<table>
<thead>
<tr>
<th>Worldwide Supply Chain Management Spending Growth Rate by Segment, 2019 (%)</th>
<th>Cloud</th>
<th>On-Premise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logistics (transportation management systems and global trade management)</td>
<td>19.8</td>
<td>4.8</td>
</tr>
<tr>
<td>Production planning (supply planning, demand planning, and sales and operations planning)</td>
<td>16.4</td>
<td>6.3</td>
</tr>
<tr>
<td>Inventory management (warehouse management systems, inventory management and optimization, and supply network optimization)</td>
<td>26.5</td>
<td>4.2</td>
</tr>
</tbody>
</table>

Source: IDC, 2016

WMS is a highly competitive market with an abundance of vendors offering these applications. Most WMS application vendors offer products that broadly meet the needs of today's users but often have both some functional and go-to-market differentiation. In addition, some WMS application vendors have taken the cloud-first/cloud-only approach when developing their applications. Vendors such as NetSuite and LogFire (both now owned by Oracle) and Snapfulfil have all taken the cloud-first/cloud-only approach and you can only acquire their applications on the cloud. Many traditional ERP vendors, such as Oracle, SAP, and Infor, offer their WMS for both on-premise or cloud deployment, although we are increasingly hearing from these vendors about an increasing focus on cloud applications. Finally, we must also consider the best-of-breed supply chain vendors such as JDA, Manhattan, and HighJump that develop top-notch supply chain applications for both on-premise and cloud deployments but again with an increasing emphasis on the cloud.

### ADVICE FOR THE TECHNOLOGY BUYER

Warehouse management systems are critical applications in the manufacturing and retail industries that enable the movement and management of inventory within the network of facilities. The important role that WMS plays in the supply chain has somewhat hindered growth of cloud-based WMS applications. This is no longer the case. Application vendors have embraced the cloud and are now delivering cloud-based WMS applications that are as functional and reliable as their on-premise applications but with the added benefits of improved scalability, flexibility, and cost savings.

For technology buyers looking to upgrade or replace their WMS applications, IDC offers the following guidance:

- **Assess the current state of your WMS applications.** Does your current application have the capability to scale and support the future needs of the business?
• **Look outside of the box.** Cloud-based applications are shaking up the WMS application landscape and providing scalable, flexible, and cost-effective options for those willing to modernize and evolve.

• **Prepare for the future.** Create a future state supply chain vision and road map for how you will get there. The future state vision should be a combination of business process and technology requirements to enable the process. Consider the growth strategy for the business and determine how well a cloud application fits into the strategy.

• **It's a big market, do your due diligence.** Evaluate a variety of vendors to determine which one has the application functionality and future strategy that best aligns to the needs of your business today and into the future.

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**Synopsis**

This IDC Perspective takes a look at the increasing appeal of warehouse management systems (WMS) in the cloud for the manufacturing and retail industries.

"As application vendors increasingly deliver full-featured WMS applications on the cloud, we are congruently seeing businesses accept and adopt cloud deployments of WMS. Over time, the feature set cloud-based WMS applications has transitioned from 'lite' versions of the on-premise application to full-featured enterprise-level applications that now compete head to head on functionality with on-premise options," said John Santagate, research manager at IDC Manufacturing Insights.
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