The Order Management Market

An IHL Retail Executive Advisory Program Research Study

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IHL GROUP insight market view IHL GROUP

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Introduction

IHL has been advising the retail community (vendors and retailers alike) since 1996 in retail information technology evolution and strategy. Initially our focus was on point of sale software, hardware and in-store technology. But over the years our focus has grown to cover all of retail information technology including commerce solutions, ERP, merchandising/supply chain, sales and marketing, and business intelligence.

Over the years we've amassed a tremendous amount of primary- and secondary-source data through first-hand consulting experience in this pursuit. From this ever-growing knowledge base of offerings like our *Sophia Data Service*, the *Worldview IT Sizing Forecast Model* and custom research projects, insight has been gained at a level unparalleled in the industry.

The **IHL Insight Market View** series of research studies build upon this knowledge and add analyst insight to graphically display vendor positioning, drive for innovation and projected growth.

The goal of this report, as well as the entire *IHL Retail Executive Advisory Program (REAP),* is to provide the retail community with the most detailed and complete picture possible of the retail technology landscape. We do this to assist retailers in vendor selection and to help the industry understand the trends, drivers and barriers that are fundamentally transforming our industry. It is our intent that this body of research continue to grow in depth and influence over the coming years. Undoubtedly, changes will be made and vendor positions will change. Some vendors will bring innovative solutions to the industry that will see their clients flourish and experience new heights of their own success. Their positions on the various IHL Insight Market View charts will improve. Likewise, others, maybe many others, will miss the transformation happening all around them and stumble and fall. Their newfound position in the industry will also be documented on the charts.

Retailers are encouraged to use these charts in discussions with their vendor partners. It is our intent that they provide unique insights into vendor strategy and provide thought-provoking questions as we all move forward and prosper in the Era of Intentional Innovation.

Retail OMS Software Market

The Retail Software Market is exploding worldwide for two main reasons: retail in emerging economies is expanding, and enterprise retailers are re-architecting their systems for Unified Commerce (the systems that enable the procurement, sale and delivery of merchandise independent of channel) and Cloud computing (along with its cost efficiencies). ***IHL projects the worldwide software market will grow 51.5% from $51.1 Billion in 2016 to $77.4 Billion in 2021. For OMS software, we project the worldwide market will grow 42% from $378.7 Million in 2016 to $538.9 Million in 2021.***

A more granular look at this growth requires an understanding of the shift in the type of software that retailers expect to use. While we still project packaged software and software maintenance to continue to grow, it is the growth in the Cloud-related Software-as-a-Service revenue (which includes the change from packaged software to SaaS) that is driving a great deal of the exponential increases. *SaaS revenue is projected to grow 263% from $6.8 Billion today to over $24.7B in 2021. For the same timeframe, OMS SaaS revenue is expected to grow 90% from $49.1 Million in 2016 to $93.2 Million in 2021.*

For those using this document to make potential OMS selections, based upon our research, we would like to highlight what we believe key considerations to be:

- Pay close attention to the tradeoffs afforded between on-premises and SaaS (both single and multi-tenant) solutions. We have written a ***White Paper*** on these tradeoffs which is good to review prior to meaningful vendor discussions.
- Ask very pointed questions about the vendor's roadmap for Artificial Intelligence. What functionality is coming? When will it be available? Is it customized or embedded? Whose API's is it based upon?
- Ask detailed questions about which integrations are off-the-shelf versus which are custom. Depending upon your roadmap and current solutions, deeply explore the tradeoffs between using the same versus multi providers of POS and Ecommerce software.
- Deeply probe the number of use cases and flexibility of the OMS solutions you are considering to ensure the vendor's solution can grow with you over the course of your intended relationship with them.
- We believe one of the greatest sources of OMS ROI is within the shipping optimization engine. During the discovery process, spend time to understand the strengths and weakness, as well as growth plans within the shipping optimization engine.
- Check the robustness of returns management functionality. If returns management comes in a separate solution, check for how tightly it is integrated with the OMS solution.

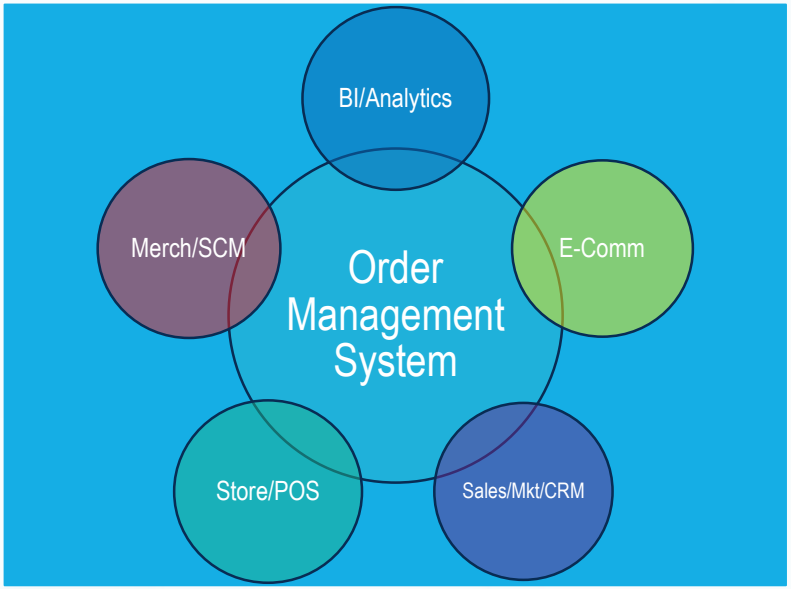
First, A History of Unified Commerce

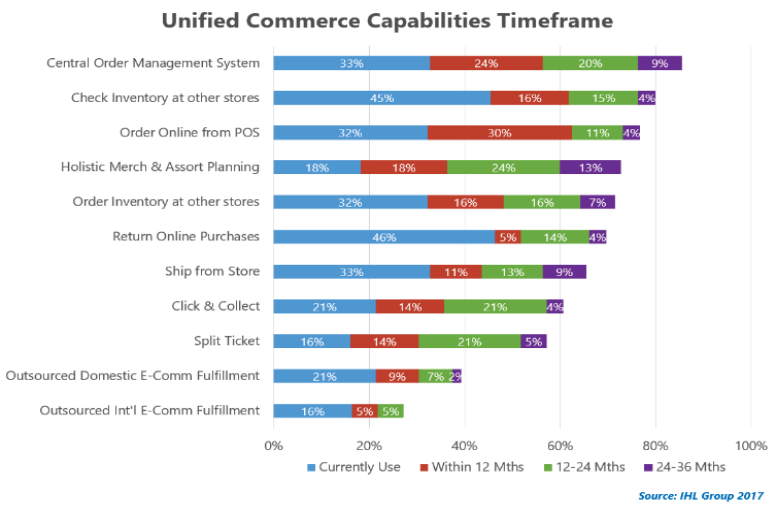
The concept of Unified Commerce has as its roots the situation that arose when retailers first attempted to add a second sales channel. A retailer's first sales channel (typically bricks-and-mortar) had a dedicated technology stack. When a second sales channel was desired, retailers had the choice to build it upon / integrate it with their existing technology stack, or build a whole new technology stack for the new sales channel. Building a new technology stack had the clear advantages of lower cost (remember, retailers' technology spend as a percentage of revenue is typically less than all other industry verticals) and a quicker go-to-market, so retailers invariably chose that path. This was repeated each time a new sales channel was added (web, mobile, catalog, etc.), with the result being disparate technology silos that did an OK job of servicing their respective sales channels, but not much else. There are two significant downsides to this approach, however. Downside number one has to do with the cost of maintaining these disparate systems, as there are few economies of scale to be had. Downside number two has to do with the lack of data integration across the silos, and this impacts products, customers, and suppliers, to name just a few. The practical manifestation of this problem is found when Retailer A doesn't realize that customer John Smith has multiple customer profiles in their systems, or when Retailer B doesn't realize that they have multiple prices in their systems for the same SKU. In each of these cases, none of the data are the same across silos, and more often than not none of the data can be accessed from any channel other than the one in which it was created.

IHL began speaking with retailers about this back in the late 1990's, and the hope expressed by retailers at that time was that "at some point" they would be able to integrate all of their respective silos. We watched as the industry talk went from single-channel, to multi-channel, to omni-channel, and some retailers were starting to see the light. We are now "at some point", and retailers are in wholesale agreement that the time has come for what we now call Unified Commerce. We define Unified Commerce as the holistic technology stack that provides one version of the truth for data pertaining to customers, products, pricing and sourcing, that in turn enables the procurement, sale and delivery of merchandise independent of channel. Those solutions that fit within the Unified Commerce umbrella are showing extremely healthy adoption moving forward across a broad range of retail segments and tiers. Retailers claim that adoption brings with it significant cost savings and a more seamless data flow for both the retailer and the consumer. We expect that within the next couple of years, the most successful retailers will embrace the concept of Unified Commerce wholeheartedly.

Introducing OMS

The foundation for a successful Unified Commerce strategy for a retail enterprise is a highly capable and configurable order management system (OMS) that is able to look at an order independently of the channel from which it originated. OMS is linked with the five key technology pillars shown in the figure to the right. OMS will be the natural extension of key POS functionality such as inventory visibility (across the enterprise), ordering from other stores, return of online purchases, ship from store, order online from the POS, click and collect, and store-to-store transfer. The broad functionality required by OMS is extended even further when one considers the additional permutations for ordering and return brought by online and phone / catalog sales.

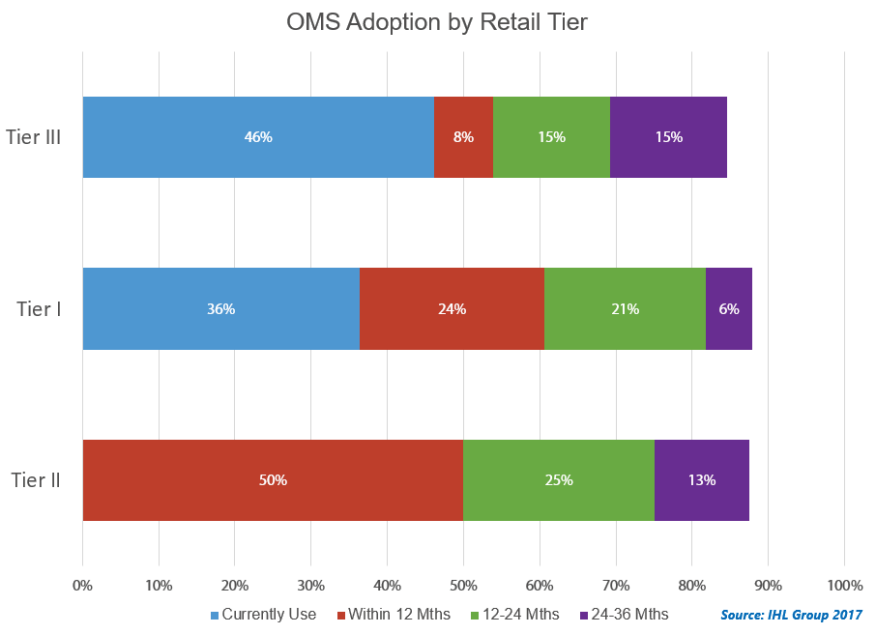




Here, Unified Commerce, with a foundation built upon OMS, acts as an architectural construct to overcome the constraints caused by channel evolution. The payoff is tremendous, and given the very thin IT budgets retailers work with, expect this transition to be much slower than anyone wants, especially the vendor community. The figure to the left offers some insight as to where retailers are currently with adoption of various Unified Commerce capabilities. OMS shows as the most adopted capability through the end of 2018, and that is driven in part by those we refer to as Leaders (that is, retailers who experienced revenue growth of 5% or more during 2016).

Smaller Retailers Lead OMS Adoption

The small and medium business space (SMB) has actually been building upon this viewpoint for the past couple of years. It is one of the few examples one can find where the adoption of technology by small retailers has outpaced that of larger ones. That said, given the size and complexity differences of the two, the comparison is not apples to apples. The vast majority of the offerings in the SMB space provide some rudimentary functionality associated with each of the five key pillars comprising Unified Commerce. We would estimate there are currently in excess of half a million SMB installations of software packages supporting at least four of the five pillars. In the enterprise space there is no such thing, though key vendors in the space are rapidly assembling full technology stacks to address the needed functionality. Fundamentally, these systems operate with the view of a customer placing an order supported by the systems that enable the procurement, sale and delivery of merchandise independent of channel procured from. While simple conceptually, the execution of such is quite challenging to pull off, especially on an enterprise scale. That said, we believe that systems supporting the Unified Commerce vision are the future of the industry.



Key Definitions

➢ Regions Included – 4 Each

- **North America** – Abbreviated "NA", it consists of the USA and Canada only.
- **Europe, Middle East & Africa** – "EMEA".
- **Asia / Pacific** – "APAC".
- **Latin / South America** – "LATAM".

➢ Segments – 8 Each

- **Food / Grocery** – Stores that sell food and grocery items, regardless of store size.
- **Drug Stores** – Stores that sell personal care and medicinal goods.
- **Superstores / Warehouse Clubs** – Large, austere stores such as Costco, Sam's Club, also includes stores like Walmart Supercenters and Super Target.
- **Mass Merchants** – Like a Superstore, but only carrying non-food items or limited food items and using a front-end checkout. Also includes Discounters / Dollar Stores.
- **Department Stores** – Traditionally larger format stores, upscale in products and including hard and soft goods with department style checkout.
- **Specialty Category Killers** – Stores that focus on a particular hardgoods product line. Includes DIY, Auto Parts, Books, Sporting Goods, Pets, Furniture, Electronics, etc.
- **Specialty Others** – Stores that focus on a particular soft goods product line. Includes Apparel, Accessories, Footwear, etc.
- **Convenience / Gas** – Includes gas stations and forecourts.
- **Hospitality** – Includes pubs, bars, restaurants with sit-down service, fast food restaurants, hotels, motels, resorts and other accommodation facilities (non-Casino), casinos, gaming facilities, cruise ships, and a wide variety of facilities such as movie theaters, stage theaters, theme parks, sporting arenas, museums, zoos, etc.

Key Definitions, cont.

Tier Definitions – 3 Each

- **Tier I** – Annual revenues in excess of 1 Billion.
- **Tier II** – Annual revenues between 500 Million and 1 Billion.
- **Tier III** – Annual revenues of less than 500 Million.

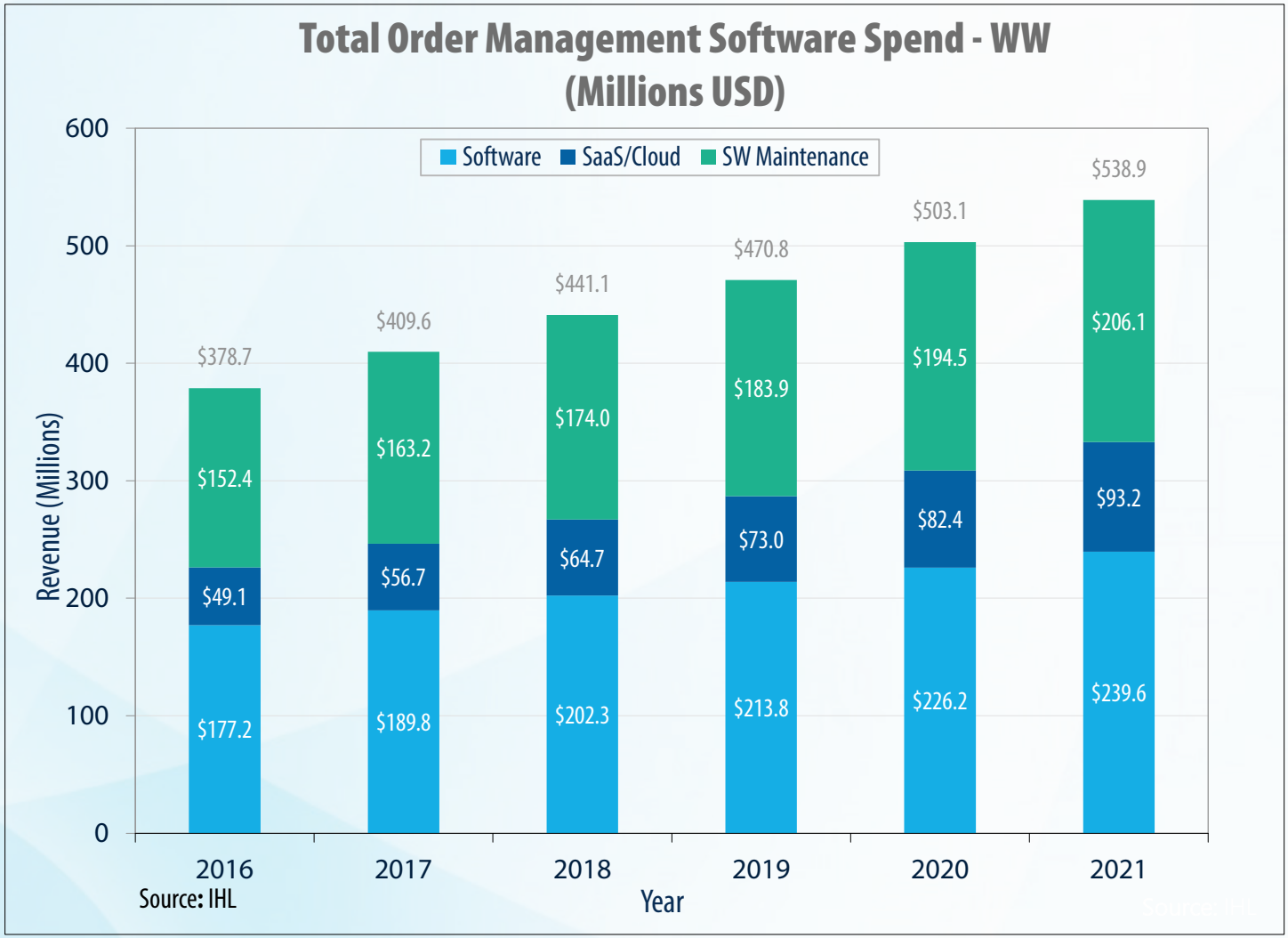
Software Infrastructure

- **Software** – This represents the traditional view of software as being installed on a user device or on a server in the same location as the user.
- **Cloud / SaaS** – This represents those situations where the user accesses software that is located on a server that is not in the same location as the user. No regard is given as to whether the software is located at headquarters or a third party.
- **Software Maintenance** – Tied to software, this is annual maintenance revenue for installed software.
- **Software Customization** – Changes to base software. Not included here, but in Professional Services calculations.

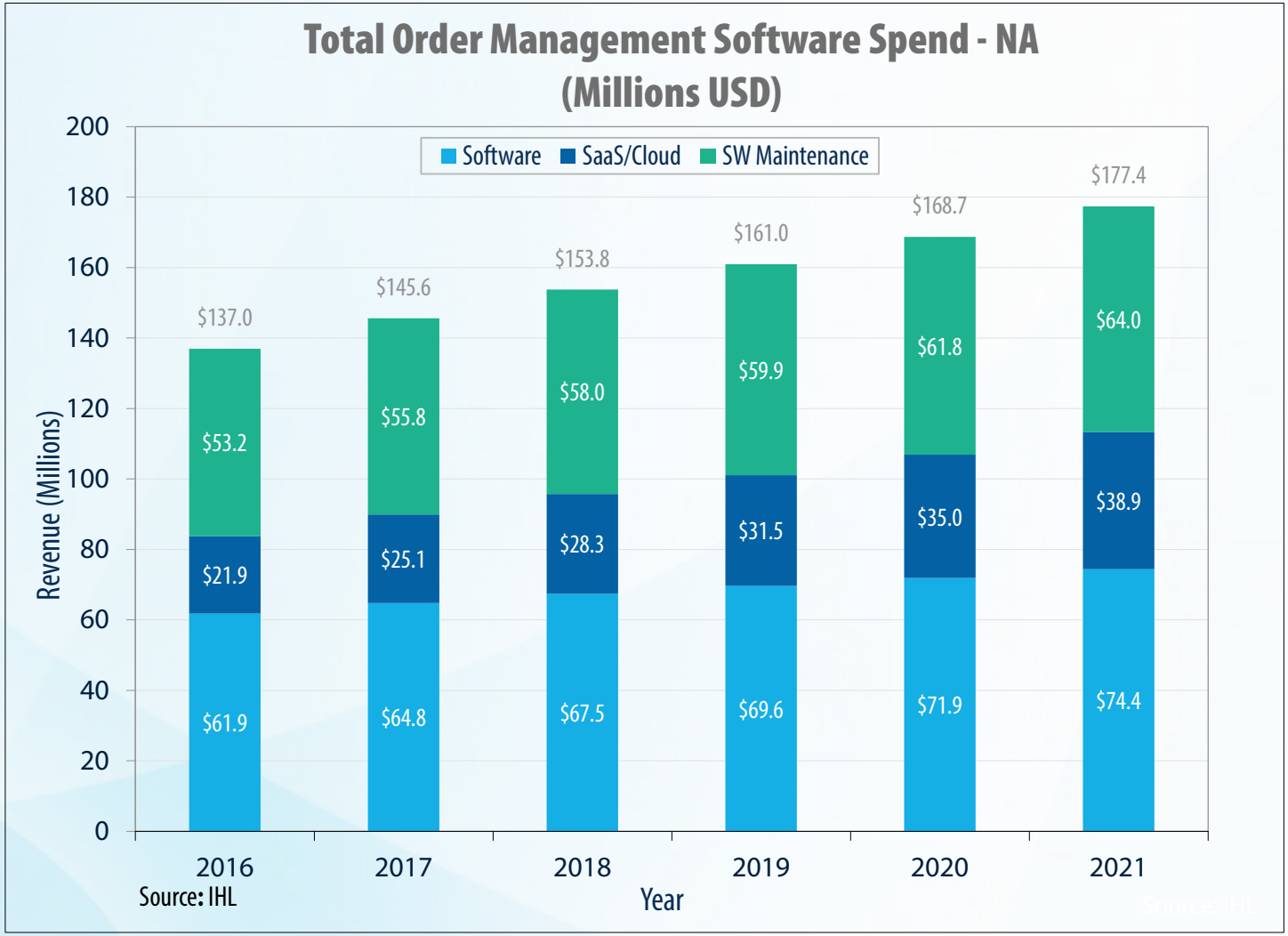
Retail OMS Software Market

A brief look at the overall retail OMS software market.

Total Retail OMS SW Spend - Worldwide



Total Retail OMS SW Spend - NA

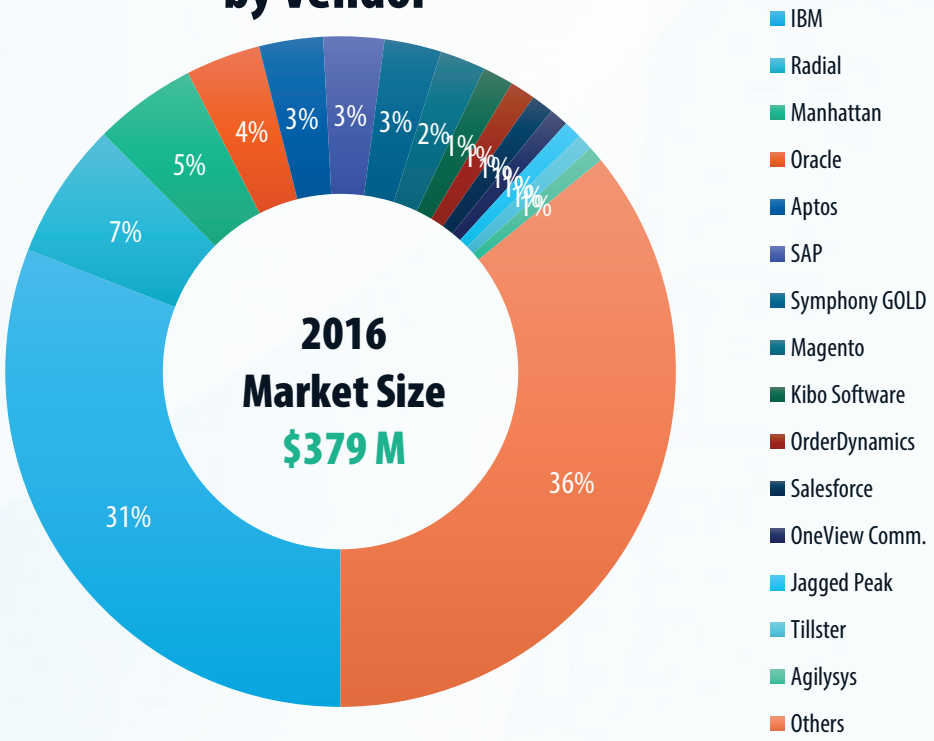


Worldwide OMS Rankings

IHL insight market view

Vendor	Total SW/SaaS ($USD)
IBM	$117.1m
Radial	$25.0m
Manhattan	$18.8m
Oracle	$13.7m
Aptos	$11.7m
SAP	$11.1m
Symphony GOLD	$10.4m
Magento	$8.3m
Kibo Software	$5.6m
OrderDynamics	$4.6m
Salesforce	$4.1m
OneView Comm.	$3.4m
Jagged Peak	$3.3m
Tillster	$2.9m
Agilysys	$2.9m

Worldwide Overall OMS Revenue Distribution by Vendor

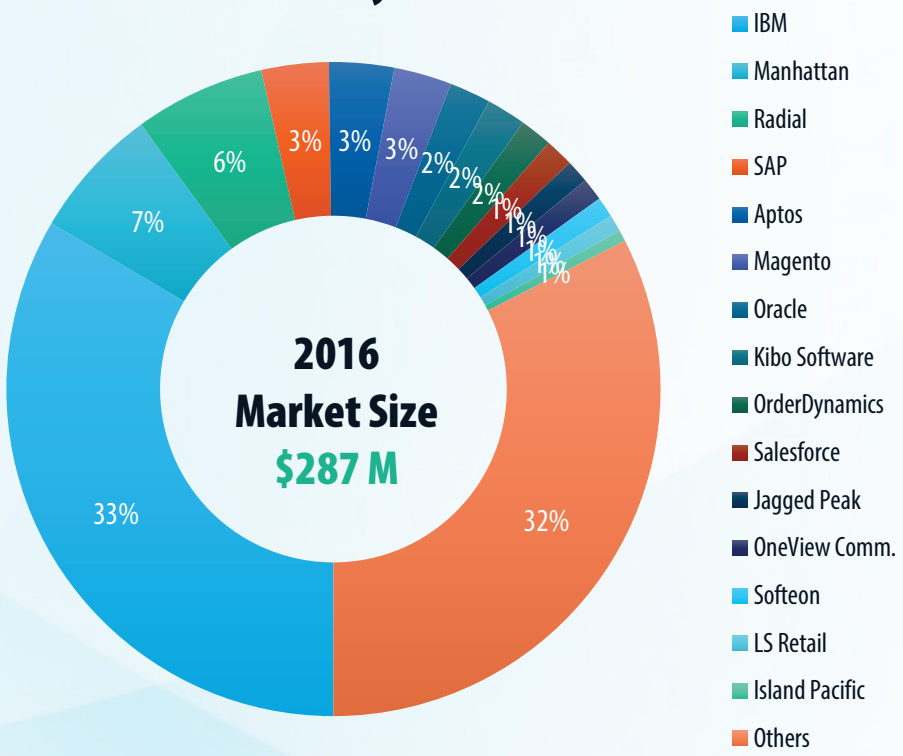


Source: IHL

Worldwide OMS Rankings-General Retail

IHL insight market view

Worldwide General Retail OMS Revenue Distribution by Vendor



Source: IHL

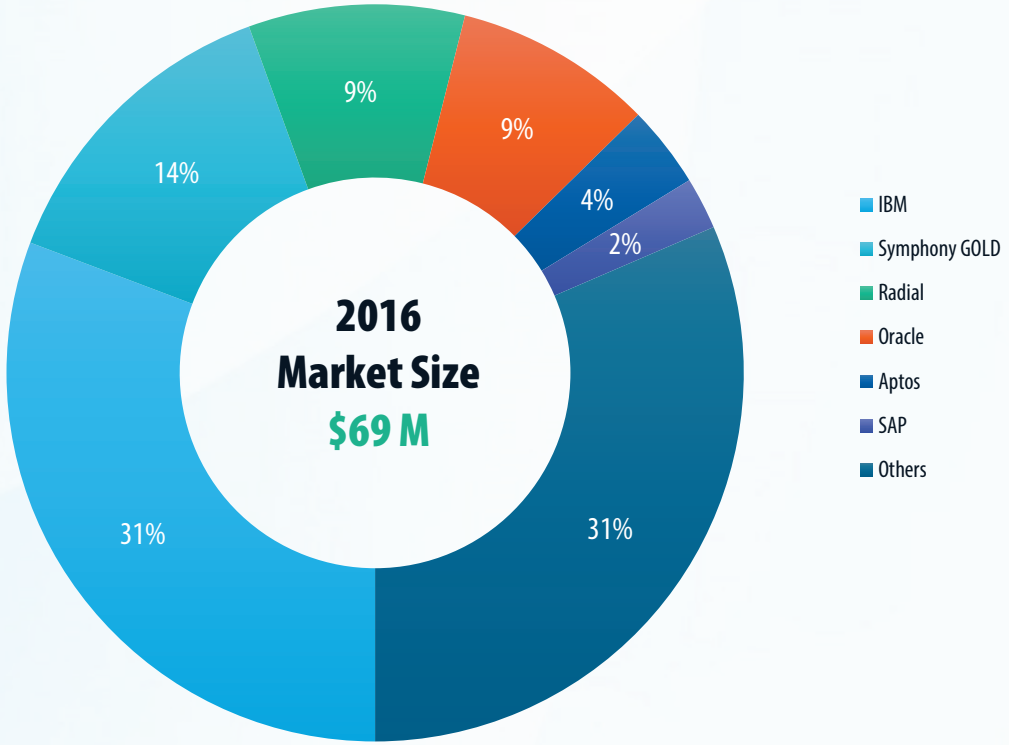
Vendor	Total SW/SaaS ($USD)
IBM	$95.9m
Manhattan	$18.8m
Radial	$18.5m
SAP	$9.5m
Aptos	$9.2m
Magento	$8.2m
Oracle	$5.9m
Kibo Software	$5.6m
OrderDynamics	$4.5m
Salesforce	$4.0m
Jagged Peak	$3.3m
OneView Comm.	$3.2m
Softeon	$2.9m
LS Retail	$2.4m
Island Pacific	$1.6m

Worldwide OMS Rankings-Food/Drug/Conv.

IHL insight market view

Vendor	Total SW/SaaS ($USD)
IBM	$21.2m
Symphony GOLD	$9.4m
Radial	$6.5m
Oracle	$6.0m
Aptos	$2.5m
SAP	$1.6m

Worldwide Food/Drug/Conv. OMS Revenue Distribution by Vendor

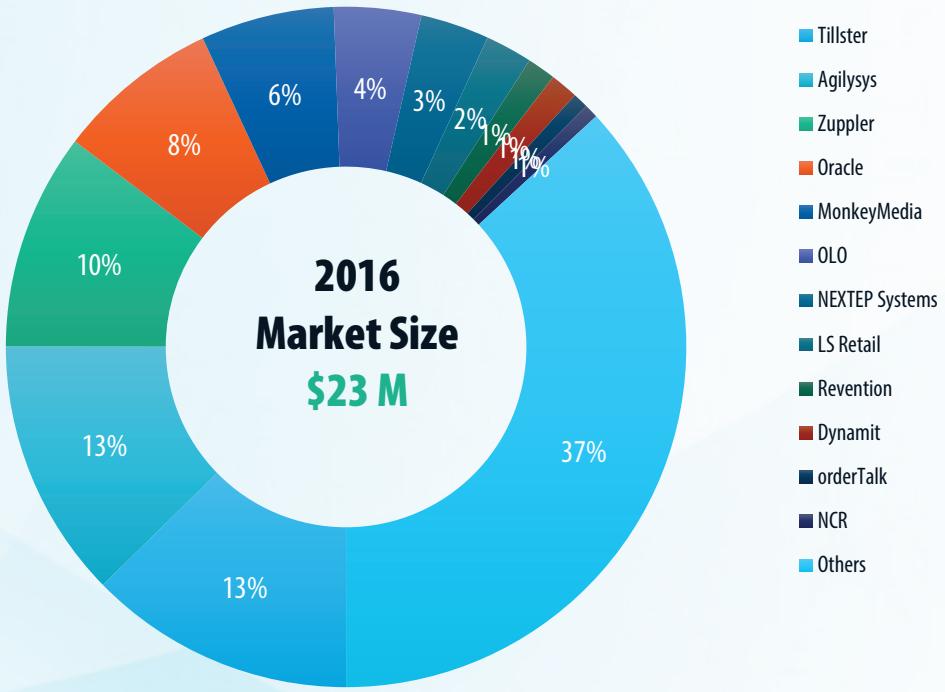


Source: IHL Group

Worldwide OMS Software-Hospitality

IHL insight market view

Worldwide Hospitality OMS Revenue Distribution by Vendor



Vendor	Total SW/SaaS ($USD)
Tillster	$2.9m
Agilysys	$2.9m
Zuppler	$2.4m
Oracle	$1.8m
MonkeyMedia	$1.5m
OLO	$1.0m
NEXTEP Systems	$0.8m
LS Retail	$0.5m
Revention	$0.3m
Dynamit	$0.3m
orderTalk	$0.2m
NCR	$0.2m

Source: IHL Group

Trends, Drivers and Barriers

The change in the software landscape over the past handful of years has been nothing short of dramatic, with new best-of- breed players, Mobile applications and Cloud solutions.

Key Trends & Drivers

Retail Apocalypse?!? Nonsense!

- Contrary to what has appeared recently in the press, the "Retail Apocalypse" is neither accurate nor is it a real thing. In fact, the re-creation of the store as a 21st century asset is well underway.
- 2017 Store IT spend growth is expected to be 4.7%.
- The trend is to make the store clickable, searchable.
  - Endless aisle (including ship-from-store capability) provides both the potential for touch and feel but also guards against lost sales due to Out of Stock scenarios.
  - Buy Online Pickup In the Store (BOPIS) has gained traction as a key element of Unified Commerce.
- North America is Overstored – Closing unproductive stores is a sound business strategy. Some retailers (maybe many) have fatal assumptions in their business model that were exposed by the emergence of e-commerce.
  - Removal of weakened retailers ultimately benefits the ones that survive.
  - Retail growth is up WW. Europe is having a solid year. US 1st quarter up 4.1% per Commerce numbers.

Cloud

- Disruptive for retailers, vendors, & SI's
- Potential cost savings of 20-30%
- Current data shows Cloud responsible for 34% of 2017 planned SW spend, up from 26% last year.

Innovation Moves to the Mainstream

- A key strategy in the battle to blunt the Amazonification of Retail is to fundamentally re-create the in-store shopping experience. Stores must become clickable with easy access to product information and inventory availability. To affect such change in their IT architectures, retailers must rapidly absorb new technology and embrace the willingness to fail in an effort to improve the customer experience. The goal should not be to create innovation labs but to move innovative technologies from the lab to pilot and eventual rollout.
- In this effort to jumpstart retailer's innovation ecosystems, new models are emerging.
  - **Wal-Mart's Store No. 8** – This is a technology incubator created and funded by Wal-Mart that will focus on startups that work in robotics, virtual and augmented reality, machine learning and artificial intelligence. This is a separate initiative from Wal-Mart labs.
  - **VC participation with retailers** – Iterate Studio is an example of a VC that has created a platform that allows retailers to work directly with retail focused startups to jumpstart retailers ability to absorb new technology.
  - **Amazon Go** – Still in beta with Amazon associates. No date yet announced for its opening to the public.

Key Trends & Drivers, con't

Notable Mergers & Spin-offs

- Oracle acquired MICROS (6/14)
- Manhattan Associates acquired Global Bay (8/14)
- Catalina acquired Cellfire (9/14)
- Epicor acquired QuantiSense (11/14)
- Epicor acquired ShopVisible (1/15)
- Demandware acquired Tomax (1/15)
- Epicor spun-off Aptos (6/15)
- Tyco acquired FootFall (8/15)
- MI9 acquired Raymark (11/15)
- Salesforce acquired Demandware (7/16)
- Infor acquired Starmount (8/16)
- Oracle acquired NetSuite (11/16)
- HNA Group acquired Ingram Micro (12/16).
- Infor acquired Birst (4/17).

Amazon is to be Reckoned With

- Larger market cap than Walmart
- 38% of all online sales during Christmas 2016
- AWS accounts for 10% of revenue and growing – Retailers are paying Amazon in order to compete with them

Profitability

- Now more a function of individual consumers shopping multiple channels rather than ops efficiencies.
- Cross-segment, cross-channel competition continues to increase.

Cross-Border Retailing

- An emerging $7 billion market fueled by the rising middle class around the world and the increased mobilization of consumers.
  - Consumers increasingly are traveling to one geographic market from another with the expectation to shop the stores when they return home, but using their local currency.
  - Growth of organic sites and marketplaces like tMall and borderfree.com are interesting examples.
  - Retailers must be transparent concerning the fully landed price to the consumer.
  - Opportunity to grow customer base and market without the capital expense of opening stores is a major opportunity.

Single View of Order/of Customer

- Central commerce hub handles customer, product and supplier data to provide "one version of the truth" of the order. Likewise, they are looking for a single version of customer information across channels.
- 63% of Retailers are looking OMS as a base for their next POS
- 24% of retailers are looking to make an OMS purchase in 2017
- This can change the entire transaction landscape: POS, Mobile, eCommerce.
- These changes are driving the need for increased spend in POS.

Key Trends & Drivers, con't

Avalanche of Advancements for AI

- Joe Skorupa, Editorial Director for RIS News, declared late in 2016 that AI was to be the buzzword of 2017. Skorupa's prediction, in our humble opinion, has proved prescient.
- Among the best examples are IBM's Watson, Saleforce's Einstein, Infosys's Mana and Wipro's HOLMES.

ETA for IoT?

- Interest in Internet of Things technology has increased dramatically as retailers sharpen their focus on transforming their in-store experience. The Intel Levi's pilot is probably the most notable for pushing its way out of the innovation lab and into pilot. Many more pilots will surface 2H 2017 and beyond.
- According to Zebra's 2017 Retail Vision study, by 2021 70% of retailers are expected to be ready to spend on IoT to improve customer experience.
- IoT allows innovation at the device / analytics / software level.
- Standardization will be required at the sensor and edge computing / middleware level for IoT to take off.

Leaders and Laggards

- Best performing retailers have Enterprise and Store IT Spend growth that is 131% and 48% higher than average retailers.
- The gap between Leaders and Average and Below Average Retailers is widening
- Leaders are more likely to be using mobile devices for associates (250% more likely), Mobile POS (150%), OMS (46%) and Ship from Store (53%).
- Retailers that tie their IT Spend to last year's sales will not survive in the age of Amazon.

Transformational IT as Strategic

- Smart retailers understand the game of retail has changed. Consumers used to HAVE to shop and now they have to WANT to shop in stores.
- Amazon is an endless aisle retailer funded by a software business and retailers are being outgunned.
- Retailers that make the two year investment of transformational IT that requires 3-4% of revenue spend will come out ahead. Those with IT budgets tied to last year's sales at the same ratios will be left behind.

Are the Robots Real?

- The answer is yes…and no. We clearly have entered the age of cognitive computing. Embedded AI is being added to many software solutions, and some very interesting pilots in customer experience have emerged including the Lowebot that is now in rollout. However, the real and immediate advantage of robots is clearly in logistics.
- Savioke's Relay robot is deployed at LA's Residence Inn. Named Wally the robot, it can deliver a Starbucks order ordered from the store to a room.

Move Over Millennials: Gen Z Rises

- The truly mobile-first generation, they have the shortest "filter" of all: 4-8 seconds before they move on.
- Deeply influenced by growing up in the Great Recession - bargain hunting is a major theme in their shopping.
- Retailers must take a "mobile first" approach with them.
- $200 Billion buying power in just a few short years.

Barriers

Security

- Security is responsible for an enormous amount of IT spend.
- Lack of return tough to justify.
- PCI/EMV probably not the way to go
  - $35 Billion Money Pit in US
  - Card Not Present Fraud increased 215% since.
  - Only 60% of retailers can process chip cards.
  - Tremendous delays in getting certified.
  - Retailers are saving track 2 data to audit fraudulent charges from banks.
- Machine Learning and Neural Technology helping retailers tighten down risk. But emerging technologies like IoT bringing even more potential threats.
- Automated forensics and dynamic malware protection becoming the rule.
- Mirroring networks for security purposes becoming norm.

Price Pressure

- Fierce competition from both inside and outside the segments putting margin pressures on retailers.
- Online retailers, especially Amazon, have a huge impact.
- "Showrooming" is an issue.
- Increasing quality and branding drives down prices.

Rise of Internally Developed Software

- Significant area of growth.
- In Unified Commerce and mergers, protecting secret sauce becomes key focus for large retailers.

Cloud: Not Just an Enabler

- Vendors and retailers have to completely re-think their roadmap and approach to POS, including POSaaS and HaaS concepts.
- Most expedient and cost-effective manner for average and below-average retailers to "get back in the game".
- AWS effect: Retailers pay Amazon for the privilege of competing with them.

Budget Constraints

- As mentioned previously, those retailers who keep their IT spend as strictly a percentage of last years sales are doomed to fall further and further behind.

Mall Bandwidth Issues

- One of the biggest challenges for the growth of software and cloud is the limitations that exist through restrictive covenants from mall owners.
- In many cases, the fastest bandwidth that retailers can get is T1 speed which is ridiculous in the age of cloud computing and having to compete with Amazon.

Leading Commerce Providers

Here we offer granularity on the solutions offered by the key vendors.

Leading Commerce Providers

Overview

As we've noted, OMS is a foundational system for today's and tomorrow's retail enterprise. Closely coupled to OMS, and of the same strategic importance are the core commerce systems, POS and Ecommerce. Retailer and Vendor investment over the last five years has resulted in a tremendous amount of innovation in architecting these three systems to work together with greater efficiency and increased functionality.

Depending upon their size and history, retailers will choose either integrated systems or best-of-breed. There is no one-size-fits-all approach. For retailers seeking counsel in these areas, our REAP Advisory reports are a ready resource for that advice. Based upon those reports, we wanted to provide a summary of the key vendors in the key areas and their predominant deployment tier. For inclusion in the attached charts we applied the following criteria by solution:

- Ecommerce – at least 15 WW accounts at that level
- OMS – at least 10 WW accounts at that level
- POS – at least 15 WW accounts at that level

This is based upon known accounts in IHL Group's ***Sophia Retail Data Service*** covering the leading 5,000 retailers in the US and EMEA. In reviewing this chart, one should not consider this to be an exhaustive list of the only vendors that might service accounts across the three groupings charted here. In ***Sophia*** we have over three hundred unique vendors providing solutions in these three areas across North America and Europe.

Additionally, one should not infer that because a vendor is listed in Tier II that they are not able to service Tier I clients. Similarly, a vendor in Tier III should aptly be considered for Tier II and potentially Tier I opportunities.

Furthermore, if a vendor had 8 Tier I OMS accounts, and several others in the Tier II space, they were put in the Tier II block. For retailers wanting specific details on client installs used in this analysis, please feel free to schedule a call with us.

One final note: These observations are based upon our research or public information vendors have shared with us. Some vendors have either chosen not to provide feedback, or company rules prohibit them from sharing. It is our experience that vendors freely share references with retailers, so we recommend that retailers query a broad array of vendors prior to forming their short list.

Leading Commerce Providers

General Retail

	E-Commerce		OMS		POS / mPOS	
Tier I	FitForCommerce IBM Magento Oracle	Salesforce.com SAP Smith WebCollage	Aptos IBM Manhattan Assoc.	Oracle Radial	Aptos Diebold Nixdorf Fujitsu Infor Manhattan Assoc. NCR	Oracle PCMS Datafit SAP/GK SW Toshiba GCS Veras Retail
Tier II	Radial	WooCommerce	Kibo Commerce Magento OneView Comm. OrderDynamics	Salesforce.com SAP Symphony GOLD	Salesforce.com	
Tier III	Amplience Aptos	Kiosked Shopify	Jagged Peak MI9	Softeon	Cegid Group Epicor Island Pacific	LS Retail MI9
Tier IV-V	Bigcommerce MI9	Square	Microsoft		Celerant Lightspeed Revel Systems	Shopify Shopkeep Square

Leading Commerce Providers

Food / Drug / Convenience Retail

	E-Commerce		OMS		POS / mPOS	
Tier I	IBM Instacart InterShop	Magento Oracle SAP	IBM SAP	Symphony GOLD	Diebold Nixdorf Extenda Fujitsu Gilbarco HITEC	NCR Oracle PCMS Datafit SAP/GK SW Toshiba GCS
Tier II	Kiosked Salesforce.com	WooCommerce			Pinnacle	Veras Retail
Tier III			Unata			
Tier IV-V					Revel Systems	

Leading Commerce Providers

Hospitality

	E-Commerce		OMS		POS / mPOS	
Tier I	Oracle		Agilysys OLO	Oracle Tillster	Agilysys Global Pay. NCR Oracle Panasonic	Partech SICOM Toshiba GCS Wand Corp.
Tier II			Zuppler		Squirrel Systems	
Tier III	Avanti Commerce Magento	Shopify WooCommerce	MonkeyMedia orderTalk	Revention	Action Systems Digital Dining Maitre'D POS Positouch	Revel Systems Revention Speedline Toast
Tier IV-V						

Key Observations/Differentiators of the Leading Vendors

The summaries which follow are based upon interviews with vendors and retailers. This is not meant to be exhaustive, but highlights either those items emphasized in the interview, or items that we felt were differentiators relative to an OMS selection.

Aptos:

1. Following the acquisition of ShopVisible (January 2015), which was primarily a Tier III-V offering, Aptos now has in excess of 20 clients with over $1 billion in revenue
2. Aptos offers 27 use cases that are integrated across Aptos applications for buy, fulfill and return across channels.
3. Solution includes catalog/call center support
4. No shipping optimization engine currently available, but does have rules-based order routing engine.
5. Though not required, most POS customers utilize Aptos OMS
6. SaaS OMS either single or multi-tenant
7. Supports both B2B and B2C

IBM:

1. Early and leading marketplace provider with over 4.5x the market share of the nearest competitor; dominant Tier I leadership.
2. While known for both expensive and complex implementations, they are emphasizing the ability to provide shorter implementation times such as one with a Tier II specialty apparel retailer requiring around 5 months to complete. This included E-Commerce as well.
3. Their Order Optimizer (Watson AI powered) supports both shipping cost and fulfilment sourcing. It is very powerful, and can include labor cost and labor utilization real time within a store to determine shipping rules. IBM is looking to embed more Watson AI in OMS in the coming months.
4. Supports both B2B and B2C sales. Market leader in both areas.
5. They offer out of the box POS integrations with the following partners: Toshiba, Infor, PCMS, and Revel. Those partners offer leading solutions in their respective spaces.
6. Leading Tier I E-Commerce provider enables tight integration with OMS.

Key Observations/Differentiators of the Leading Vendors (continued)

Jagged Peak:

1. SaaS-only offering either single or multi-tenant
2. Since being acquired by Singapore Post (October 2015) can now provide an expanded outsourced fulfilment network in the US, Europe and Asia-Pacific.
3. Around 100+ active clients in over 45 countries (and 50+ DC's) as fulfilment business allows them to expand their OMS client base
4. WMS and TMS are fully integrated but not required to be purchased for OMS
5. Their EDGE platform is sold with these components either individually or as a bundled package - OMS, TMS, WMS, Content Management (ECP)
6. Due to their fulfilment business, they offer a very broad array of shipping carriers integrated with supporting cross border commerce
7. Currently integrated with the following E-Commerce offerings: Salesforce, Magento, IBM and Oracle
8. Typical deployments are 90-120 days

Kibo Commerce:

1. One of the best/broadest order routing optimization modules we reviewed
2. They claim over 500 active OMS clients spanning both retail and CPG
3. They boast approximately 37 uses cases
4. They also offer their own mPOS and Ecommerce package, though both have much more modest installed bases than their OMS product.
5. Currently integrated with the following E-Commerce offerings: Salesforce, Magento, and SAP/Hybris.
6. Their OMS supports call center functionality. They also provide client call centers outsourcing as a service.

Key Observations/Differentiators of the Leading Vendors (continued)

Magento:

1. Built from the ground-up as multi-tenant SaaS offering
2. Hosting only available through Amazon Web Services (AWS)
3. OMS can be sold as a standalone item and they have current E-Commerce integrations with Salesforce and IBM
4. Shipping optimization is done through a separate Magento offering, Tomando
5. No current AI capability embedded in the product
6. A leading B2B E-Commerce offering.
7. One of the market leaders in B2C and B2B E-Commerce, and over 125 of those are Tier I retailers.
8. POS only offered through partners.
9. Their E-Commerce strategy (with a Community addition for the SMB space and an Enterprise product) gives them fertile ground to grow their OMS business.
10. OMS and store inventory are one application.

Manhattan Associates:

1. Third largest OMS revenue worldwide overall, but ranked and positioned as the number two provider overall.
2. Can provide market leading POS/mPOS through their Global Bay acquisition, but no E-Commerce offering. Following the Global Bay acquisition, the POS/mPOS solution has been totally rewritten to better integrate with their OMS and SCM offerings.
3. They offer a SaaS-based single tenant solution that is written using microservices-based architecture
4. Microservices introduced four months ago, but fully operational
5. For hosting, they fully support AWS, Azure, Google and Oracle. They were the most flexible in hosting options of all that we reviewed.
6. Full call center support.
7. They support all major OS platforms: iOS, Android and Windows.
8. Very flexible pricing options and deployment models available.
9. OMS, POS, Store Inventory and Store Fulfilment are a single application, thought can be procured independently.

Key Observations/Differentiators of the Leading Vendors (continued)

MI9 Retail:

1. They have in excess of 70 OMS installations, almost the entirety of them in the Tier III and below space, though some selected installations up to Tier I. The smaller customers tend to be online-only retailers.
2. Their solution can be deployed on-premises or in the cloud. Most of their larger clients remain on-premises, while the newer customers have deployed their cloud-based offerings.
3. The MI9 OMS for e-commerce is cloud-only.
4. E-Commerce includes OMS, but OMS can be purchased separately; every E-Commerce customer is using their OMS; about half of their POS clients are also using their OMS; OMS with another solution is not required but that is usually the case.
5. OMS supports call centers.
6. Amazon, eBay and Jet.com are the three marketplaces that are supported.
7. Hosting is provided by AWS.
8. The company recently began selling its new Fulfillment Optimization technology that is now part of OMS.

OneView Commerce:

1. Written as a fully SaaS-based multi-tenant offering.
2. Microservices-based architecture added in 2012.
3. Key Ecommerce integrations with SAP/Hybris and IBM.
4. They offer both OMS and POS. Most clients have both.
5. OMS and POS includes an enterprise inventory management module that integrates to any legacy POS for omnichannel processing.
6. Almost all installation are with >$1 Billion specialty retailers, North American and Western European based.
7. Current deployments in over 20 countries.

Key Observations/Differentiators of the Leading Vendors (continued)

Oracle:

1. Supports both B2B and B2C sales. Market leader in both areas.
2. One of the most complete solution offerings across multiple areas for retail and hospitality from Tier I through III.
3. Within the context of OMS, they have two products, Order Management and Order Broker. Order Management can be viewed as order management and visibility and Order Broker as the shipment optimization engine. This allows them to sell to clients with an existing or home-grown OMS, yet still benefit from the shipping optimization piece.
4. About two-thirds of all clients use both Order Management/Broker though one is not required with the other or any other Oracle solution to function independently.
5. Both are available either as on-premises or SaaS-based single-tenant solutions.
6. Future enhancements for the order management suite will focus on optimizing the fulfillment engine for making fulfillment decisions on margin & cost, a concierge contact center
7. The majority of their OMS installs are in the specialty Tier I and II space.
8. An Order Broker implementation is often measured in weeks.

OrderDynamics:

1. Written from its inception as a fully SaaS-based multi-tenant solution
2. In the process of migrating their solution to a microservices-based architecture
3. Focused on retailers with 20-500 stores in the general retail space in North America and western Europe. Most of their existing client base is represented within this demographic.
4. No POS offering and solely focused on OMS, and support legacy E-Commerce clients.
5. For those looking for an AWS alternative, they offer Microsoft Azure only.
6. Order routing optimization can route based upon how busy a location is. This is fairly unique for Tier II/III OMS providers. Routing also includes enhancements like order consolidation and shipping rate brokering.
7. Recently they have rewritten their returns management module to be more robust and feature-rich.
8. Typical integration is around 90-120 days.
9. Call center capability.
10. Currently offer E-Commerce integrations with Salesforce, Shopify Plus, Episerver, Magento, IBM, Oracle, and Kibo Commerce.

Key Observations/Differentiators of the Leading Vendors (continued)

Radial:

1. Radial Order Management (ROM) is a multi-tenant SaaS offering.
2. Dropship Manager solution is available as single tenant or multi-tenant with supplier management services.
3. Target clients are those doing in excess of $20 million to a half billion in E-commerce revenue meaning they scale from mid-Tier III easily into Tier I.
4. ROM consists of four components (DOM, Inventory, Customer Service & Store Fulfilment). DOM and Inventory are core; Customer Service and Store Fulfilment are available as optional modules. Radial Payments & Fraud solution is required for ROM, but they are working to unbundle and offer integrations to other payment platforms.
5. They emphasize their broad returns capability (both in-store and self-service) as key differentiators.
6. Another core differentiator to their business is the offering of Fulfillment & Transportation plus Customer Care operations as a service. Their outsourced fulfilment business comprises a large portion of their revenue and they have deep experience provided this service.

Salesforce:

1. Available as a multi-tenant SaaS based solution.
2. They are one of the leading SaaS software providers in retail.
3. In the specialty retail space they also provide market leading POS and Ecommerce software that is integrated with their OMS software. Salesforce OMS requires the use of their E-Commerce software.
4. They provide between 8 and 10 product releases annually.
5. With CRM critical within retail, Salesforce of course, cut their teeth and is a market leader in the CRM space, bringing this expertise into the retail product portfolio.
6. They have a very large developer community, which can help extend their solutions due to the common technology base.
7. While one of the concerns over cloud is the homogenous nature of solutions among all clients, through their architecture they can accommodate some level of customization. This is a unique capability. They note their common development standards help reduce customization costs.
8. While no Artificial Intelligence capability is incorporated into their product today, Einstein functionality is available within Salesforce's Digital offering and will soon power Order Management use cases.
9. Broad returns management capabilities.

Key Observations/Differentiators of the Leading Vendors (continued)

SAP:

1. The market share leader in B2B E-Commerce.
2. Use of their OMS requires use of either their E-Commerce (Hybris) or ERP system.
3. Their European market share in OMS is much larger than in North America. This is a byproduct of their European leadership in ERP and E-Commerce.
4. They offer their own POS through the legacy Triversity product and their closer-than-a-partner-partnership with GK Software. GK is their go-forward POS offering, and for the intent of integration purposes, should be viewed as an SAP offering.

Symphony GOLD:

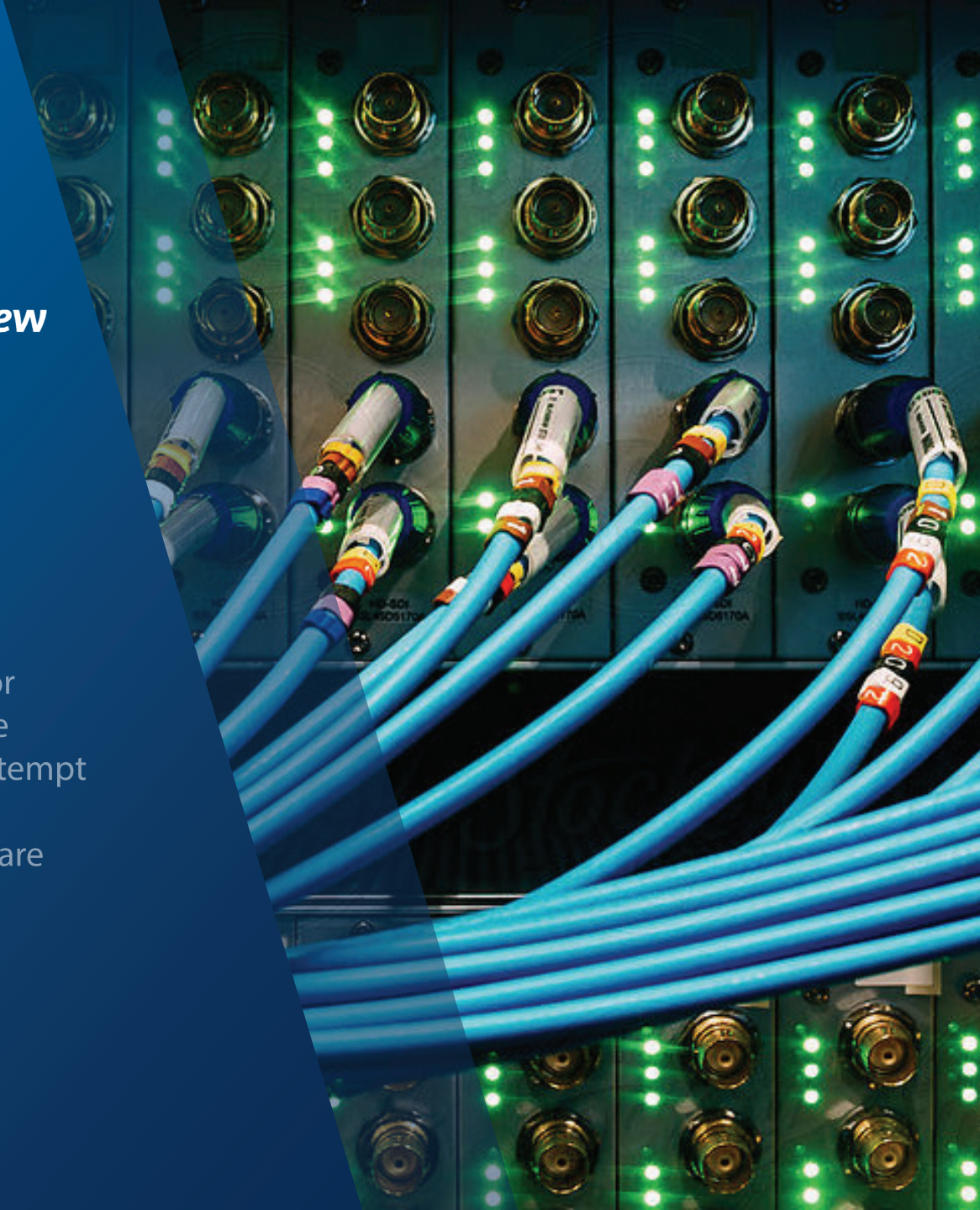
1. OMS is bundled with Order Fulfilment, Click & Collect, and WMS; but can be purchased separately.
2. They started selling OMS in 2006, so over a decade of experience in this solution space.
3. They have a dominant position in European grocery OMS, which is a ahead of the North American grocery market.
4. They provide both on-premises and single-tenant SaaS.
5. Beyond grocery, Symphony also has OMS clients in the Department Store, Drug, Mass and Specialty space.
6. Over 20 of their OMS clients have over $1 billion in revenue, and support over 10k SKU's.
7. Their expertise in Fresh Item Management is a differentiator for them, as this plays a key role in OMS for grocery.
8. They support call center ordering.
9. They too have a strong B2B business.
10. They provide cloud hosting on any provider, though Microsoft Azure is the default.
11. Out-of-the-box E-Commerce integrations for both SAP and Magento.

IHL GROUP insight market view

Positioning Maps

Just providing software revenues for individual vendors doesn't paint the whole picture. In this section, we attempt to provide a more accurate representation of the leading software players' true position in the market.

IHL GROUP



The IHL Insight Market View Positioning Map displays vendors by innovation, market strength, and market share. It is a 3-dimensional view of the market that takes into consideration the scale of the vendors involved and not just direction. So the reader gets to see size of strength, not just position of strength.

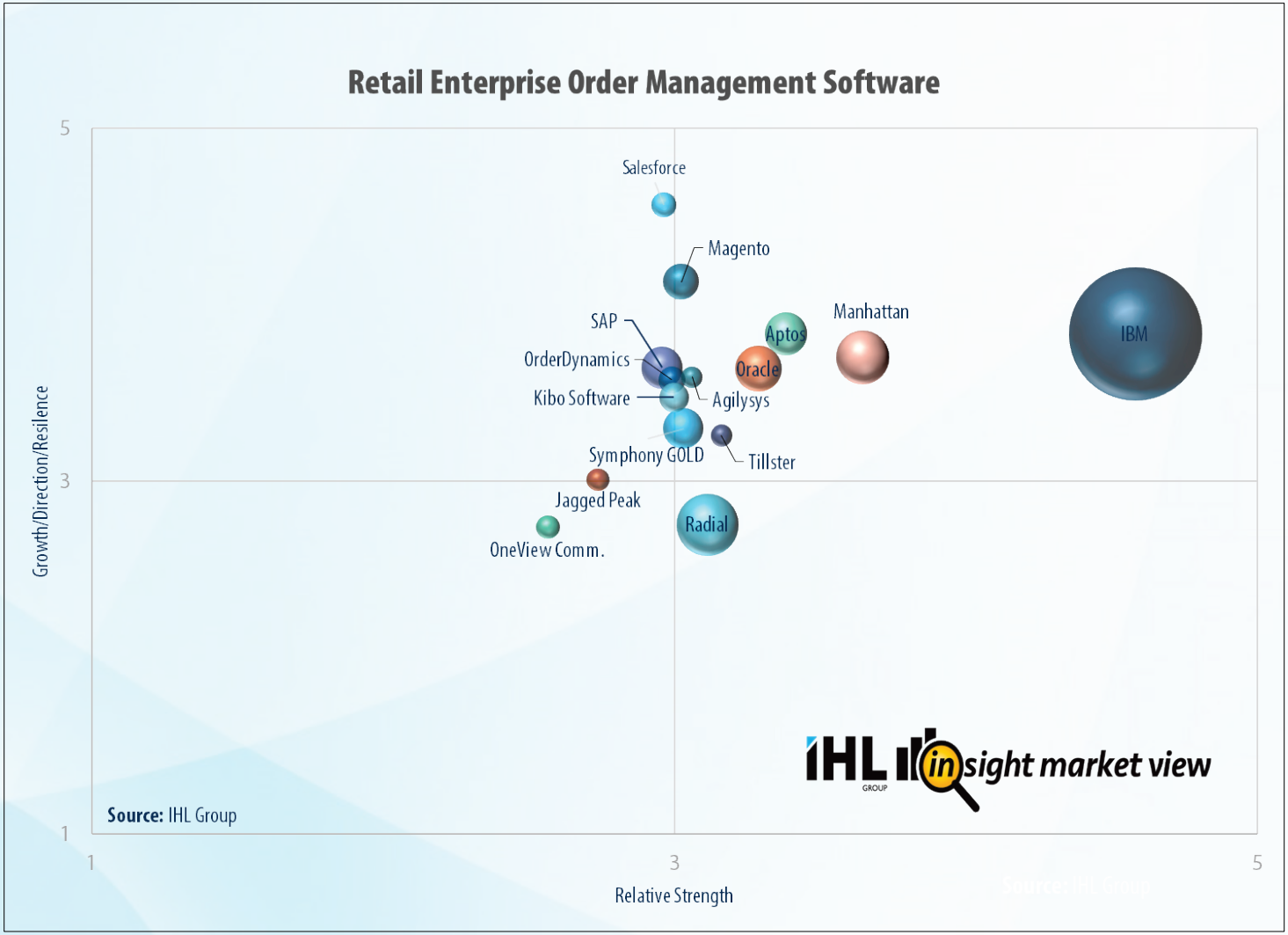
Over 75% of the ratings and positioning come from completely objective measures leveraging our WorldView IT Sizing and Forecasting model and our Sophia data service which tracks installs by vendor. Only 25% of the total positioning is in any softer measure such as review of innovation or customer satisfaction.

Here are the categories that make up each axis.

X – Market Strength	Y – Growth/Direction/Resilience	Z – Market Share
Global Reach	**Revenue Growth Trend**	**Market Share**
# Retail/Hospitality Accounts	**Customer Satisfaction**	
Size of Accounts	**Stability/R&D Commitment/Funding**	
Innovation	**Unified Commerce (BI, Commerce, Merch/SCM, Sales & Mktg, Store Systems)**	
Market Share Growth		

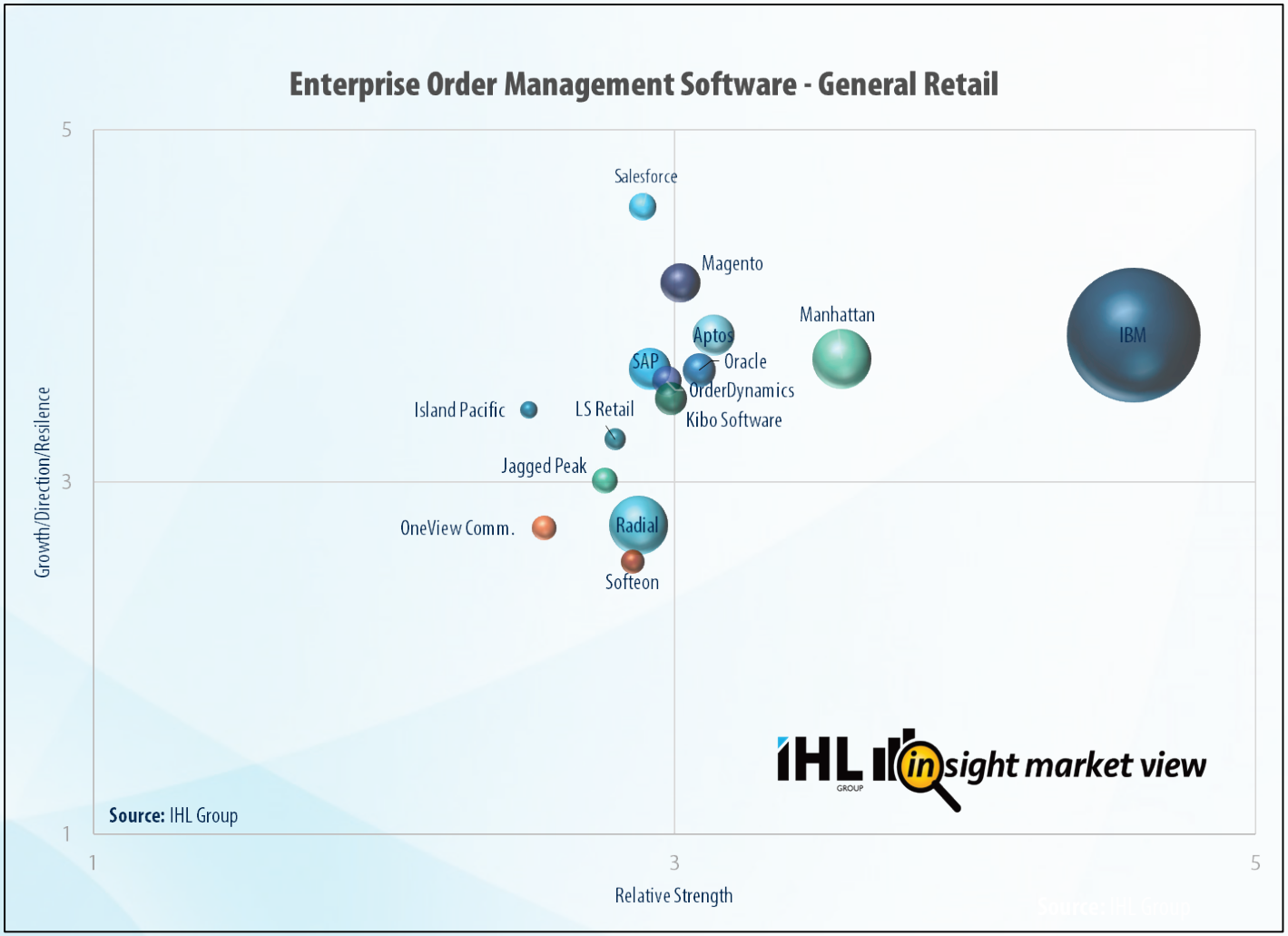
Total OMS Software

Top Providers



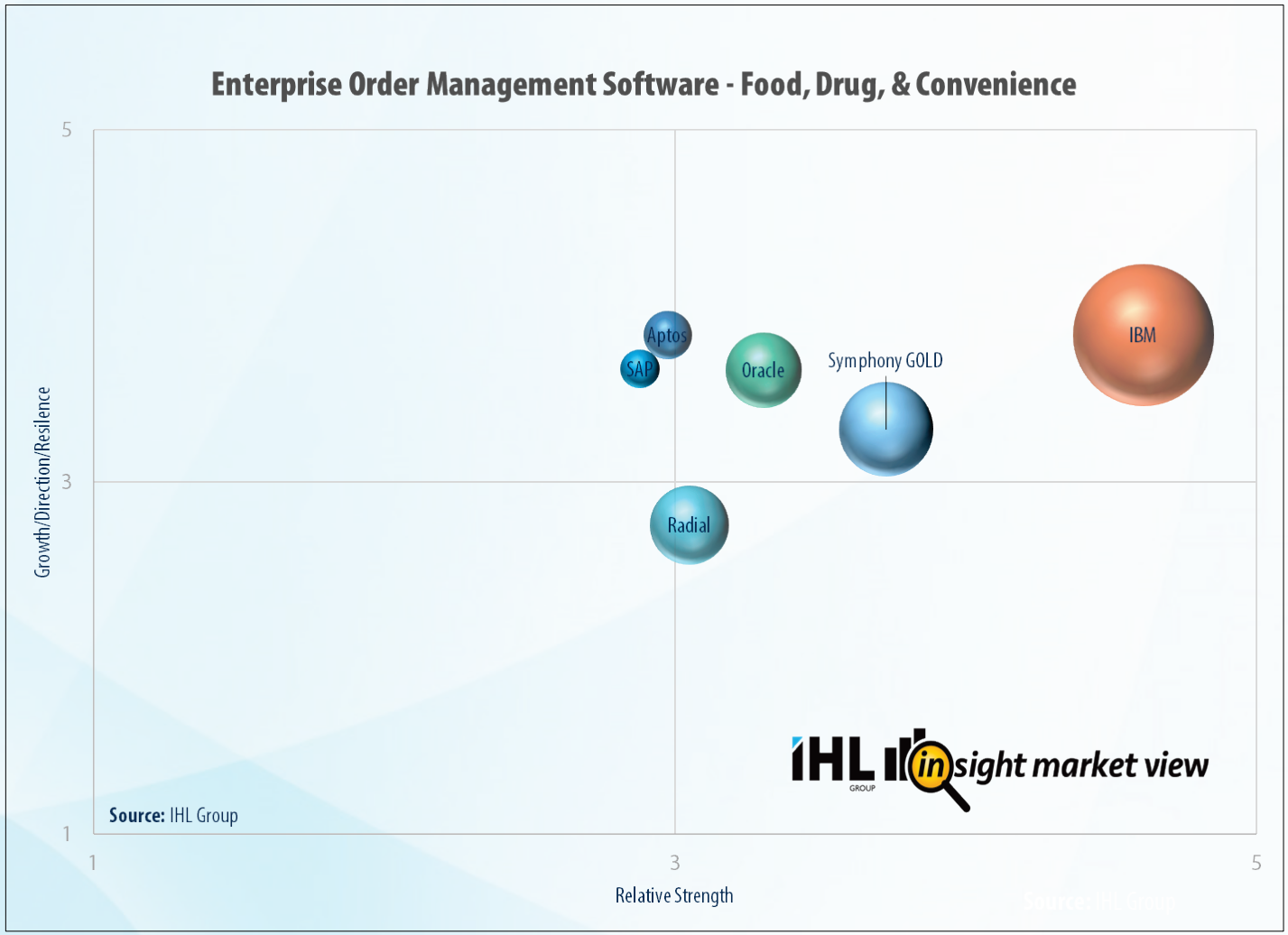
Total OMS Software-General Retail

Top Providers



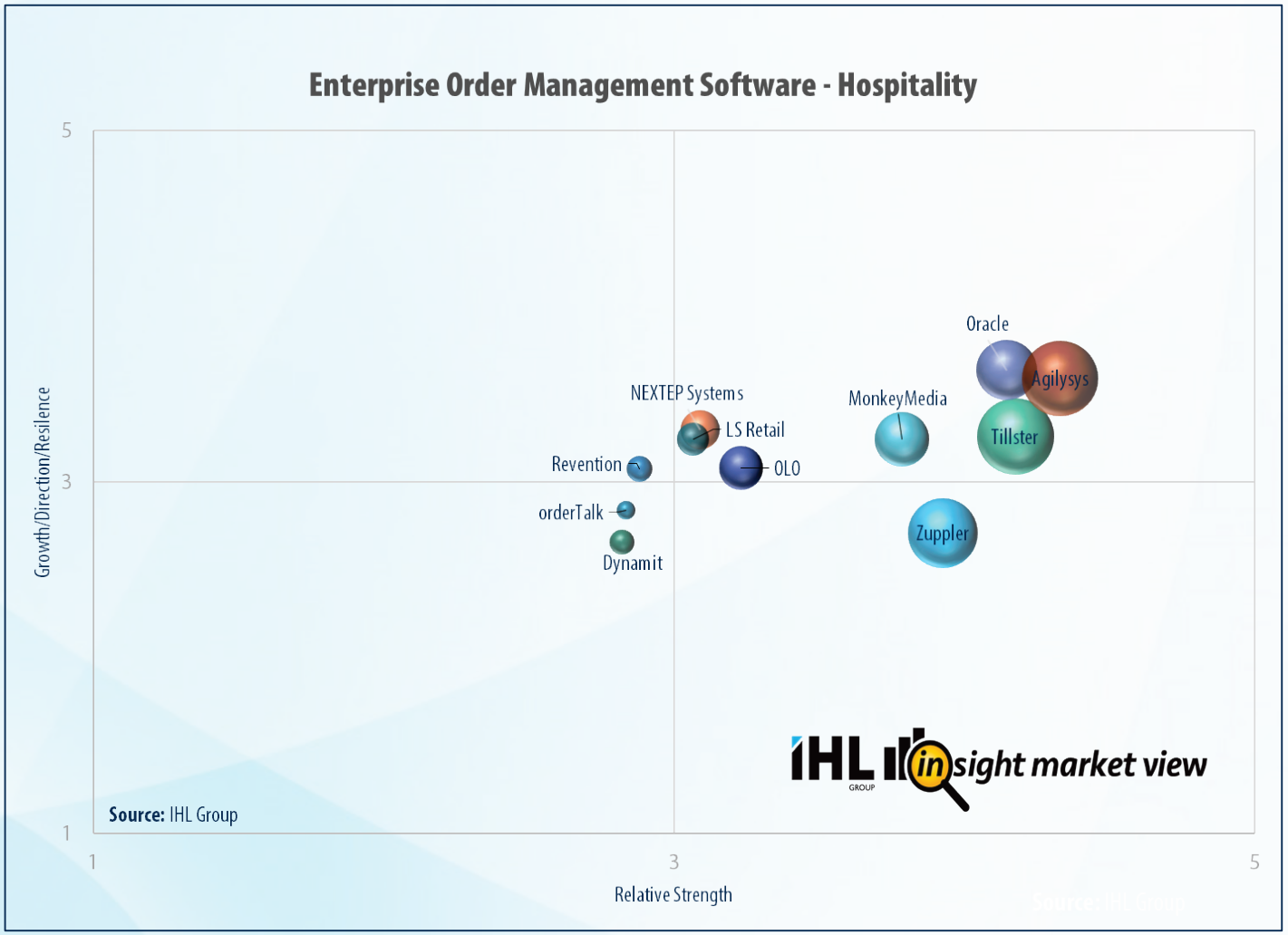
Total OMS Software-Food/Drug/Conv.

Top Providers



Total OMS Software-Hospitality

Top Providers



Methodology

Here we describe how we arrived at he figures included herein.

How We Got Here

The IHL Insight Market View series is part of the IHL Retail Executive Advisory Program. This is the first of several research studies to be released and it is only available as part of an advisory relationship. The IHL Insight Market View research studies combine several of IHL's best-in-class research components into a single industry view meant for retailer and vendor executives.

The only difference between this distributable study and the client version is the detailed vendor profiles section has been removed. Nothing has been rewritten or changed. You may refer to our website and the OMS product page for a vendor profile example.

Step 1 – We leverage our ***WorldView IT Sizing Forecast Model***, a sizing and forecast tool for over 300 retail Hardware, Software, SaaS and Services categories. IHL has been sizing and forecasting the retail/hospitality market worldwide by solutions for over 10 years. This provides the upper bounds of the market data and total market size.

Step 2 – We combine this with our ***Sophia Data Service*** that tracks over 4,500 enterprise retailers and hospitality providers (with a minimum of 50 locations) in terms of which vendor's technology a given retailer/hospitality provider has installed, the total lanes/licenses, the timing of those installations and when they are due to be replaced.

Step 3 – We validate the installs and business sizing for each vendor through public records and vendor/channel interviews. Customer service/traction is validated through existing customer interviews and surveys.

Step 4 – We merge all of this together into a singular view that not only provides total market size, but also market share and scale of difference between vendors.

This study represents the overall worldwide retail and hospitality Software and Software-as-a-Service market. For more information on the additional studies being released as part of the ***Retail Executive Advisory Program***, please see our website or contact us at +1.615.591.2955.

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Thank You

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