Magic Quadrant for Warehouse Management Systems

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WMS vendors are competing to tackle critical market demands like cost of ownership, automation/robotics support, adaptability and cloud services. Supply chain technology leaders can use this research to understand the current state of the WMS market and gain vendor insight.

Market Definition/Description

Gartner defines a warehouse management system (WMS) as a software application that helps manage and intelligently execute the operations of a warehouse, distribution center (DC) or fulfillment center (FC).

WMS operations natively exploit mobile devices along with bar codes and potentially RFID or other scanning/sensing technologies, to form the transactional foundation of warehouse management. This enables efficiencies of directed work activity (optimization) and the delivery of accurate information in near real time. Core WMS capabilities address, among others, the needs to receive, put away, store, count and pick, pack and ship goods. Gartner also includes additional integrated functionality offered by WMS providers beyond core WMS. These extended WMS capabilities can include more advanced capabilities such as managing labor or optimizing the locating of inventory within a facility.

Standard Capabilities

The standard or core capabilities for this market include:

- Receiving
- Inspection/quality
- Put-away
- Cross-docking
- Stock locating
- Inventory management
- Location management

- Replenishment
- Order allocation
- Picking
- Wave planning/management
- Staging
- Packing
- Truck loading
- Manifesting
- Cycle counting
- Shipping
- Automated material handling equipment (MHE) interfaces

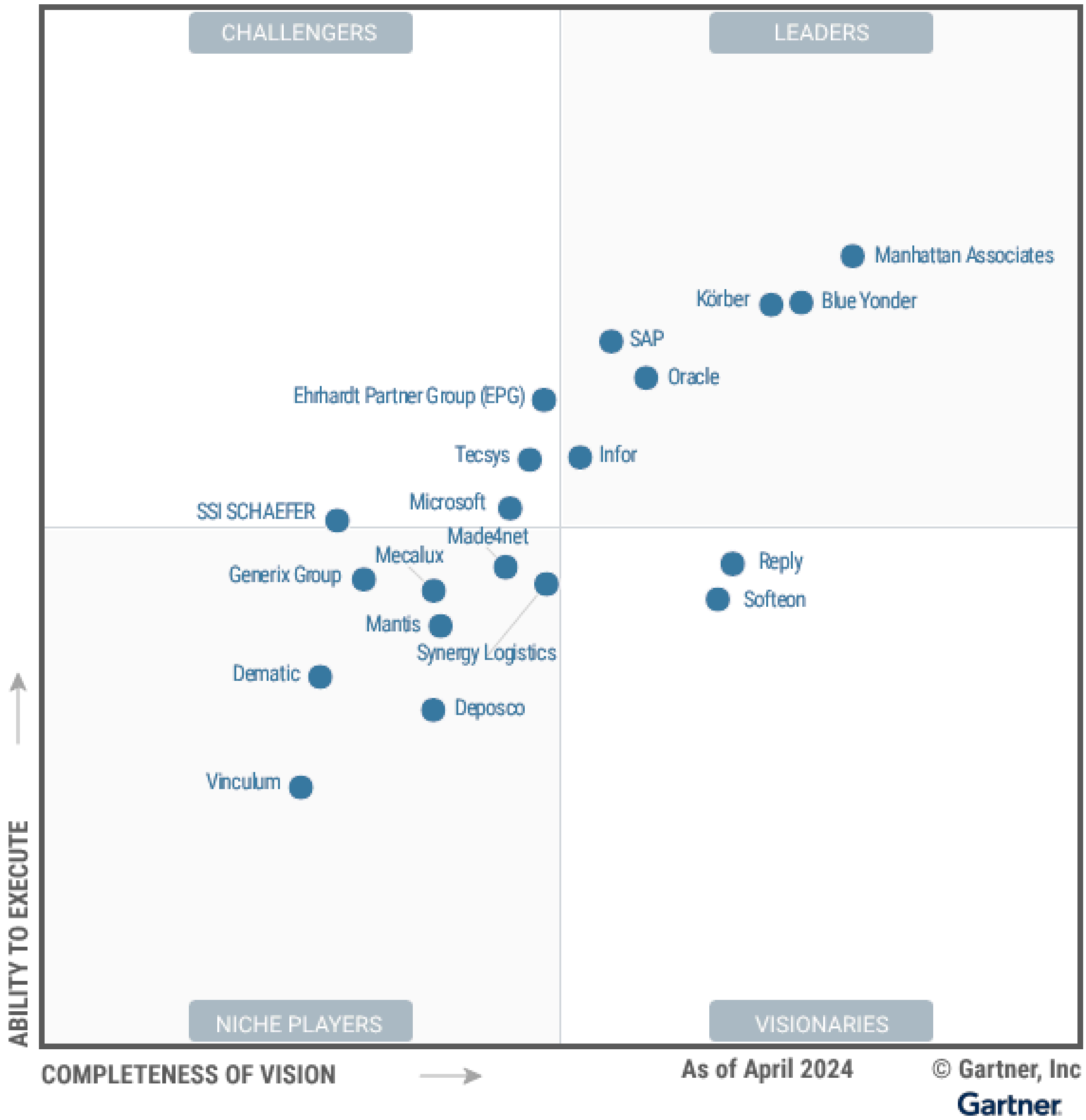
Optional Capabilities

The optional or extended capabilities for this market include:

- Workforce/labor management
- Task interleaving
- Slotting
- Yard management
- Dock appointment scheduling
- Voice picking
- Parcel manifesting
- Value-added services such as light manufacturing/kitting
- Third-party logistics (3PL) billing

Magic Quadrant

Figure 1: Magic Quadrant for Warehouse Management Systems



Source: Gartner (May 2024)

Vendor Strengths and Cautions

Blue Yonder

Blue Yonder is a Leader in this Magic Quadrant. It operates independently under the Panasonic Connect umbrella. It is the largest supply chain management (SCM) suite vendor in this evaluation, with around $1.47 billion in 2023 revenue, of which $1.1 billion was software revenue and $223 million was WMS software revenue.

Blue Yonder offers a portfolio of individual SCM solution suites that includes warehouse management, warehouse execution, workforce/labor management, transportation management, supply chain planning, merchandising and retail planning. In 2023, Blue Yonder acquired Doddle, a provider of returns management software, supporting areas like self-service kiosks and pickup, drop-off (PUDO) networks. In February 2024, it acquired flexis AG, supporting production optimization, and transportation planning and execution, adding to its supply chain execution (SCE) portfolio. In March 2024, Blue Yonder announced the intent to acquire One Network to aid its vision of an end-to-end supply chain ecosystem.

Blue Yonder has around 1,050 WMS customers (about one-third using its legacy Dispatcher product), with go-lives across 50+ customers globally in 2023, of which more than 60% had multisite rollouts. Its customers span 19 vertical industries with notable strengths in consumer products, third-party logistics (3PL), retail, grocery, automotive and pharmaceuticals. Almost 50% of Blue Yonder's WMS customers are based outside its home geography of North America and it has a global network of 87 implementation partners.

Blue Yonder's Warehouse Management is most often used in Level 3 and 4 warehouse operations, where functional robustness is valued by customers whose needs are more sophisticated and complex. However, it can scale from high Level 2 to Level 5 operations, where it has numerous highly automated customers. Blue Yonder has about 50 direct customers (and 20 indirect), leveraging its tasking and robotics hub as part of its warehouse execution bundle. Blue Yonder is moving from an on-premises deployment model to cloud/SaaS, with about 100 customers on SaaS today and 95% of new bookings now SaaS. In 2022, Blue Yonder launched WMS services for lower-complexity environments (such as stores and microfulfillment centers), supported by a separate product named Adaptive Fulfillment and Warehousing (AFW), which it is testing with a few customers.

Strengths

- Blue Yonder is distinguished by the maturity, adaptability and capabilities of its core and extended WMS functionality. It is strong in workforce/labor management, traceability and performance management, and could grow in other areas through its recent acquisitions of Doddle and flexis AG, and following its announcement of a binding agreement to acquire One Network.

- Blue Yonder has a strong partner network leading more than 50% of its new deployments. This approach, combined with technology partnerships, such as for automated testing and API-based connectors, is driving more agile implementations for lower- to medium-complexity environments.

- Blue Yonder's bundled tasking and robotics capabilities (part of the Blue Yonder Warehouse Execution System) has seen customer growth over the last couple of years. This is as it offers accelerated robotics onboarding and an easier upgrade path for its WMS customers without having to directly integrate with the robotics vendor.

- The vendor has a long track record of delivering WMS solutions to highly complex warehouse operations, and has a large and diversified WMS customer base of demanding, complex and sophisticated customers.

Cautions

- Migration and upgrade strategies for legacy WMS customers may be complicated by Blue Yonder's platform vision. It is taking an incremental approach to moving warehouse capabilities onto its Luminate platform.

- The vendor’s incremental and hybrid approach to moving to microservices and multitenant cloud might be OK for existing customers, but it adds complexity while functionality is in different technologies.
- Blue Yonder’s subscription agreements have potentially significant financial penalties for not staying current with software upgrades. The solution also lacks the ease of continuous upgrades that other WMS vendors offer.
- Blue Yonder’s roadmap to update to a cloud-native WMS architecture could add further technical complexity when seeking to preserve highly customized and third-party extended legacy deployments. Recent acquisitions may further complicate the roadmap.

Dematic

Dematic is a Niche Player in this Magic Quadrant. It is part of KION Group (a manufacturer of materials handling equipment), and is a material handling equipment (MHE) and software provider.

There have been several acquisitions in the last decade, bringing various forms of warehouse software, with the most recent in 2020 of Digital Applications International (DAI), a U.K.-based provider of intralogistics and WMS software. Dematic has around 10,000 employees (over 1,100 focused on warehouse software) and revenue is from various forms of warehouse software, (some are WMS). Gartner estimates warehouse software revenue exceeds annual $150 million and that Dematic has more than 500 warehouse software customers.

It has customers in 27 countries, Gartner estimates approximately two-thirds of its customers are headquartered in North America, more than a quarter in Europe, and the remainder in Asia and other regions. Dematic maintains direct implementation resources across Europe and North America. It has WMS customers across 21 industries, including in retail, food service, and industrial and construction machinery. Offering a broad suite of warehouse solutions, Dematic caters to various needs, from its own warehouse control system (WCS), warehouse execution system (WES) and WMS, asset and maintenance management, to the supply of a wide range of its own automated material handling equipment. It also handles some automation reselling activities, such as for AutoStore, Dexterity and Quicktron, and implementation services for SAP’s EWM.

Dematic’s go-forward product, Dematic WMS, was previously sold under the Matflo brand and came from the acquisition of DAI. Most customers specifically select Dematic to support their highly automated Level 5 warehouse operations. However, most of its customer sites are rollouts of manual warehouse Level 3 operations. Dematic targets large businesses with both automated and manual warehouses. Dematic is working toward the next generation of its offering, WXS, leveraging Google Cloud to combine WMS, WCS and WES capabilities on a common technical platform based on its existing solution portfolio. Due to its historical focus on large-scale automation solutions, almost all of Dematic’s implemented customers are on-premises deployments.

Strengths

- Dematic has a broad product portfolio supporting intralogistics. In addition to its material handling equipment and its WMS, WCS and WES capabilities, it has developed some robotics support and AI capabilities.
- Dematic's midterm roadmap focuses on greater capabilities in computer vision, scenario modeling and planning, yard management and distributed order management to complement its existing strengths.
- Dematic has a strong geographic presence in North America, with consistent growth in Europe. Because it is part of the larger Europe-headquartered KION Group, it has expansion and collaboration opportunities with the capability to serve as a one-stop shop for MHE, racking, warehouse software and optimization capabilities.
- The vendor is stable, having existed in one form or another for more than 200 years. It is supported by a group with extensive experience in warehouse management, material handling and MHE automation.

Cautions

- Dematic is behind the majority of WMS vendors in cloud maturity, with minimal cloud adoption and the majority of its clients deployed on-premises with a classic perpetual license model.
- While Dematic is working on a next-generation platform (with consolidated WMS, WCS and WES), there is no defined roadmap for completion, with some of the existing software having a slow upgrade path.
- Dematic's background and heavy focus on automation may limit depth and breadth of focus on manual WMS business functionalities and emerging capabilities demonstrated by other vendors.
- Dematic WMS remains best suited for companies committed to using its material handling equipment. Non-Dematic MHE customers should do detailed assessments to determine suitability for stand-alone WMS implementations and integration with non-Dematic ecosystem hardware.

Deposco

Deposco is a Niche Player in this Magic Quadrant. It is a provider of cloud-based SaaS SCM solutions, headquartered in Alpharetta, Georgia, U.S., with additional locations in the U.K. and Singapore. It has been in business since 2011 and is one of the companies backed by UPS through its Strategic Enterprise Fund portfolio. Deposco's software solutions are built natively on the cloud, and all of its customers are multitenant public cloud deployments using cloud infrastructure from AWS. In addition to WMS, it provides distributed order management (DOM) and some demand and supply planning capabilities on the same platform.

Deposco is a new entrant to this Magic Quadrant, just qualifying on total WMS revenue and customer threshold, but also with high three-year compound annual growth rate (CAGR) for WMS revenue and relatively high customer CAGR. It has about 115 employees focused on its WMS business. Out of approximately 200 WMS customers, around 90% are based in North America, with most of the rest based in Europe. Deposco's top industries are e-commerce and general retail (30%), 3PLs (23%) and consumer packaged goods (13%). It is particularly strong in midsize-enterprise omnichannel commerce, direct-to-consumer, and is also well-suited for e-commerce and multichannel fulfillment centers. It claims to offer customers fast time to value with rapid implementation timelines ranging between 60 to 180 days, depending on the complexity of the client environment. It offers a robust library of open APIs, connectors, and sockets for integrating to various third-party applications like commerce platforms, parcel systems and automation vendors.

Deposco's core WMS is mostly used in moderately complex warehouse environments (i.e.,

Level 2 and Level 3 warehouses, with some Level 4 and automated environments).

Strengths

- Deposco has a compelling SCE convergence strategy and capabilities with broader SCM solutions. They range from planning to warehousing, and DOM built on a common codebase and hosted on a common platform. This offers its customers enhanced planning, execution- and analytics-driven, decision-making capabilities.

- Deposco offers a comprehensive prebuilt library of 150+ connectors with commonly deployed applications in e-commerce markets. This enables its customers with a faster time to market, accelerated onboarding and ease of building new integration.

- Deposco offers a robust set of "beyond core WMS" capabilities designed and well-suited for the midmarket, including prebuilt integrations with carriers and enterprise applications, and a 3PL billing and visibility portal.

- Deposco offers a reasonably mature data strategy for its customers through extended data retention on the cloud (for data-driven fulfillment and analytical support). It also offers support for scalability (high and peak volumes for e-commerce customers). As its customer base grows, the opportunity for benchmarking data for operations could be an asset to customers.

Cautions

- Deposco is not as functionally broad or deep as other vendors in this Magic Quadrant, especially for extended WMS areas such as labor management, yard management or work optimization.

- Deposco's global presence is minimal compared to other vendors in this research, with some presence in Europe, and opportunities to expand further in Asia through its DOM customer base.

- As Deposco has a relatively small number of employees and today is directly involved in the majority of its projects, significant rollouts may be constrained as customers are fully dependent on Deposco for implementation and postdeployment support. Furthermore, as Deposco's implementation and system integrators (SI) partner network and training programs

are just emerging, customers should vet partner capabilities to support multisite/multicountry deployments in time-constrained environments.
- While a good fit for the midmarket, Deposco has less experience in complex, larger multisite enterprises with highly complex, people-driven and automated warehouse environments. It is beginning to target higher-complexity environments, which may impact total cost of ownership (TCO) and time to implement going forward.

Ehrhardt Partner Group (EPG)

Ehrhardt Partner Group (EPG) is a Challenger in this Magic Quadrant. It provides a broad portfolio of WMS/logistics solutions and has slightly more than $100 million annually in WMS licenses and services revenue, making up more than two-thirds of its overall revenue.

In addition to its WMS solution, EPG LFS, it has multiple SCE applications and a native WCS, as well as consulting and cloud and hosting services in multiple regions. EPG also provides its own voice solution, LYDIA Voice, that it sells with, and independent from, its WMS. In 2023, EPG acquired majority stakes in Groenewout and Greenplan, acquiring additional consulting capabilities, and routing and scheduling capabilities, respectively.

Its main offices are in Germany and the U.S., with other locations across EMEA, Australia, Japan and Mexico. EPG has over 1,000 employees focused on logistics software and hardware solutions. Most of EPG's 885 WMS customers, with 1,600 total supply chain execution customers (69%), are based in Europe (52% in the Germany, Austria and Switzerland [DACH] region). About 13% of its WMS customers are in the Middle East and Africa, with 10% in North America, 4% in Asia/Pacific and 4% in Latin America. EPG's largest customer industry segments are 3PL, retail/e-commerce, industrial and construction machinery, automotive/parts, and consumer products (83% of its total customers). It offers industry-specific functions for some of these segments and for food/beverage, pharma/healthcare, and textiles.

EPG has direct implementation resources in all regions and is supported by partners in North America, Latin America and Asia, accounting for 8% of implementations. In 2023, it built a new AI-focused department, supplemented by its recent acquisitions. Its WMS is most often used in Levels 4 and 5 warehouse operations, but it can scale from high Level 3 through Level 5 operations. Most of EPG's customers (80%) have deployed or migrated to a dedicated cloud environment using EPG's private cloud services. A traditional perpetual license model is offered, plus a subscription offering, and customers have the option to deploy on-premises.

Strengths

- EPG has 35 years of experience in warehouse management, and is a stable, privately owned company with consistent, regional and international growth in revenue, customers, facilities, employees and partners.

- EPG has extensive experience in highly complex and automated (Level 5) warehouses and offers integrated WCS and 3D graphical simulation, emulation and visualization capabilities.

- EPG has more competitive pricing and TCO compared with other WMS vendors in this Magic Quadrant.

- In addition to strong core WMS capabilities, EPG, through product development and acquisitions, offers a portfolio of packaged and independent supporting technologies and extended WMS capabilities. These include LYDIA Voice, dock scheduling, inspection tools, extended workforce management, contract and billing, and predictive maintenance for automated facilities.

Cautions

- EPG is lagging behind other vendors in technical architecture who have moved, or are moving, toward more modern microservices-based WMSs. Although EPG completed its migration from a procedural to an object-oriented programming language some time ago, it is still on a journey toward an object-oriented architecture. Three-quarters of its customers are still using its old offering.

- EPG is not optimized for any hyperscaler, although customers could host WMS on one of their choosing. Its cloud option is only deployed as part of its private cloud offering, EPX cloud services, with limited multitenant cloud options.

- While a good fit for complex and highly automated environments, LFS is not optimized for lower-complexity operations and its usability is undifferentiated in this respect. However, the vendor does offer other stand-alone solutions like cross-docking and light WMS (through its LYDIA Enterprise Solution [LES]).

- Some of EPG’s extended WMS capabilities, notably workforce management and contracts and billing, were not built specifically for warehousing. It could be too functionally rich for some companies, while also lacking in some areas, such as engineered labor standards.

Generix Group

Generix Group is a Niche Player in this Magic Quadrant. It provides a portfolio of SCM solutions with two WMSs, as well as transportation and yard management, logistics order and replenishment management, and electronic data interchange (EDI).

In November 2023, Generix Group acquired DDS, a French software vendor that digitizes supply chain and transport flows, and provides a TMS. Approximately 54% of Generix’s $87.6 million in revenue in 2023 comes from total WMS revenue, and more than 270 of its 800 employees are focused on WMS. The company offers two distinct WMS solutions: Generix WMS and SOLOCHAIN WMS. Generix WMS is deployed across approximately 420 customers and 2,110 warehouses. SOLOCHAIN is a contemporary WMS and manufacturing execution system (MES) solution with 97 customers in Canada, the U.S. and Mexico, and a small presence in South Korea and Australia.

Of its 517 WMS customers, 73% are based in Europe, with around 19% of its customers in North America and the remainder (8%) in other regions. Its WMSs are deployed in 34 countries, with the largest market in France (around 155 customers). Seventy-four percent of Generix’s WMS revenue is from consumer products manufacturers, retail (including e-commerce) and 3PL, with multichannel retail representing its largest customer segment followed by consumer products and 3PL.

Generix's WMSs are most often used in Levels 2 through 4 warehouse operations, but Generix WMS in particular scales to Level 4 and some Level 5 environments. Generix lacks a warehouse control system of its own for highly automated Level 5 warehouse operations, but does offer standard connectors to some automation systems and engineering support for more complex mechanized integrations. More than 90% of its new contracts are SaaS, with 54% of its customers now deployed on dedicated cloud. Its preferred deployment method for new customers is dedicated cloud. For Generix WMS, it uses a pricing model based on fixed monthly fees for process subscription and recurring fees linked to transaction volumes, not users. For SOLOCHAIN, pricing is primarily based on users and sites.

Strengths

- Following investments in R&D from its 2022 restructure, Generix has released multiple new features, including resource planning and forecasting, and improvements in predictive and prescriptive analytics.

- SOLOCHAIN is well-suited to combined manufacturing and warehouse operations because it offers a seamlessly integrated WMS and MES. This goes beyond simple transactional integration and addresses the complexities of process integration between the warehouse and the shop floor.

- SOLOCHAIN offers powerful visual tools to facilitate, accelerate and enhance implementations, as well as provide ongoing support. It provides a model-driven architecture and back-office capabilities that document every client interaction in the application, facilitating upgrades.

- Generix WMS does not restrict users in its subscription pricing model and this can provide an attractive TCO for some customers.

Cautions

- Generix lacks a strong implementation partner ecosystem globally and most of its implementations are direct. Only around 10% of its overall implementations involve a partner. Prospective clients should vet their implementation and support capabilities, especially for multisite deployment models.

- In 2023, Generix's overall company and WMS revenue declined despite reasonable growth in WMS customer numbers. It is only projecting modest WMS revenue growth in 2024.

- While the technical architecture and back-office capabilities of SOLOCHAIN are differentiated, it lacks the depth and breadth of other WMSs' core and extended functionalities, including Generix WMS. This forces customers to balance architecture versus capability. Generix has two additional platforms for other capabilities and has been attempting to rationalize capabilities across its WMSs.

- Though Generix offers an API-first integration strategy with enterprise applications and a limited set of automation vendors to accelerate deployments, to date it lacks robust, in-built WES capabilities. This could impact project timelines for more complex Level 4 and 5 operations.

Infor

Infor is a Leader in this Magic Quadrant. Owned by Koch Industries, Infor is a business application megavendor with approximately $3.4 billion in projected global revenue. Infor's WMS software revenue in 2023 was approximately $200 million. In addition to WMS, its portfolio includes a number of SCM applications embedded in or integrated with several of its ERP solutions.

Infor's SCM products range from planning applications to warehousing, labor management, 3PL billing and transportation. About 30% of its new WMS deals involve existing Infor ERP customers, and 70% are with net new customers. We estimate the vendor has almost 1,500 WMS customers across numerous WMS offerings, with about 220 of these now multitenant cloud. Eighty percent of new customers are cloud, while codebase remains largely on-premises. Most of Infor's overall WMS customers are on legacy Infor WMSs.

Sixty-five percent of its customers are international (31% in Asia/Pacific, 19% in Europe and the Middle East, and 15% in Latin America), with 35% coming from North America. Around 60% of its implementations involve systems integrators (SIs) and partners (including three global organizations and 21 local partners). Its strongest markets are 3PL, retail/grocery, wholesale distribution, automotive and industrial. Infor prefers a subscription-based WMS pricing model but can support perpetual licensing.

Infor's WMS is most often used in Level 3 operations, but it is making inroads toward more complex Level 4 and Level 5 environments with a growing presence in Level 4. Infor also offers Factory Track, bundled with its various ERP systems, which provides simplified Level 1 and low Level 2 warehouse capabilities. Infor prefers a multitenant cloud deployment but offers a range of deployment options, including on-premises.

Strengths

- Koch provides financial stability and a 10-year roadmap to further develop the Infor organization and its products. This includes further focus on cloud and its limited microservices architecture, as well as developing GenAI capabilities.

- Infor has a roadmap to further leverage innovations developed for other areas to enhance its WMS capabilities. It has capabilities, such as Birst for analytics, Coleman for AI, ION for integration between Infor and external applications, and its Infor OS.

- Infor's extensibility approach, which includes Mongoose, is differentiated and addresses WMS customization even for midsize enterprises, which remains problematic in other multitenant WMS cloud deployments. It allows users to make "no-code" enhancements. In addition, Infor launched enhanced scripting in 2023 to allow technical people to make more advanced changes.

- Infor is one of the most distributed WMS vendors internationally, with deployments in 65 countries and almost two-thirds of its business outside its home base of North America. It is frequently on client shortlists in Asia, heavily supported by its partner network, where approximately one-third of its customers are located.

Cautions

- Market awareness of Infor's WMS remains low. The total customer base for WMS (approximately 1,500) and Factory Track (approximately 2,500) is a small percentage of Infor's overall ERP customer base. Many Infor customers are unaware of its capabilities in warehousing and data collection, thereby seeking alternatives.

- Infor lacks the functional depth and breadth and industry differentiation of other WMSs.

- At the corporate level, Infor stresses its industry focus and differentiation (including healthcare), but so far there is no tangible evidence of notable verticalization of the WMS product.

- A high proportion of Infor's WMS customers still use legacy products and can't easily upgrade to take advantage of its current WMS's newer features and capabilities. Infor has tried to alleviate this problem by developing "migration factories," but moving to its newer WMS will require reimplementation, not an upgrade.

Körber

Körber is a Leader in this Magic Quadrant. Its supply chain software business is part of the broader international technology group Körber. The vendor has executed a "buy and build" strategy over the last several years that has integrated multiple supply chain technology providers to service customers globally under the common Körber brand.

Körber goes to market with four independent WMSs with a total of 1,628 customers and around 1,000 direct employees focused on WMSs. In addition, other employees are focused on related warehouse applications, multichannel order management/DOM and freight audit and payment (FAP).

Körber's four WMSs are: K.Motion Warehouse Edge, which is best suited to Level 2 and low Level 3 warehouse operations; K.Motion Warehouse Advantage, which primarily fits Levels 3 and 4, with some presence in Level 5 operations; K.Motion Enterprise 3PL, which primarily fits Level 3 and low Level 4 warehouse operations; and K.Motion WMS X, which primarily serves Level 5 operations but is present in Levels 3 and 4, primarily in the DACH region, France and Spain. Fifty-four percent of the company's WMS customers are based in North America, with 35% in Europe, 6% in Latin America and the remainder across the rest of the world.

Körber has adopted a cloud-first model for new business, but cloud adoption varies by WMS — from 5% for WMS X to 80% for Enterprise 3PL. Körber's WMSs are dedicated cloud-only today, but the vendor has a vision to move toward a multitenant, microservices architecture over several years.

Strengths

- Körber has seen relatively strong customer growth compared with other leaders in this Magic Quadrant. Additionally, its acquisition of enVista's DOM/order management system (OMS), recent launch of AI-based slotting, nascent GenAI use cases and warehouse worker gamification enhance its breadth of capabilities as it aims to catch up with other SCM vendors.

- Körber's extensibility offerings have been cited by customers as a primary reason for selecting Warehouse Advantage. These include its process and API designer tools that enable clients to add extensions and make changes to the business logic level without changing the underlying source code.

- Körber has strong warehousing expertise and solutions that go beyond core WMS. Areas include voice, simulation and modeling, and material handling integration, along with its own WCS. Its leadership position relative to intralogistics smart robotics is also growing. Körber is in the early stages of aligning these capabilities with its new unified control system (UCS).

- Körber is one of the few WMS vendors to offer a blended, user-based pricing model (concurrent and named) to its clients. This can provide more flexibility and a lower TCO for multisite/multishift operational models.

Cautions

- Körber continues to sell, develop and support four distinct WMS offerings while focusing on developing its next-generation WMS platform. While its WMS technical platform enables it to upgrade some common functionalities across three of the four WMSs, other features are built on different logic and will not fit this approach.

- A growing number of clients have noted negative service and support issues with implementations, upgrades and large deployments. High adaptability is in part the reason for this as it can add complexity. Therefore, customers must have strong internal technical resources and robust governance and version-control processes in place to manage, control, and where possible, minimize customization.

- While Körber has been building or rewriting some of its applications on a new microservices platform, it is yet to rebuild core WMS features on the microservices platform. Consequently, customers could face multiple upgrades.

- While the 2022 restructure increased focus to Körber's supply chain business, there has been disruption to the senior management team. The separation from the larger Körber group may impact longer-term strategy; customers should not assume alignment with other Körber solutions. For example, there are no plans to integrate with the manufacturing division's software.

Made4net

Made4net is a Niche Player in this Magic Quadrant. It is a WMS and SCE-related solutions vendor. Gartner estimates it has over $30 million in annual WMS revenue. In 2022, Made4net acquired

U.S.-based WMS vendor Zethcon and its midmarket 3PL and cold-chain-focused Synapse WMS. In May 2023, Ingka Investments, the investment arm of Ingka Group (largest owner and operator of IKEA stores in 31 countries) acquired Made4net to improve its order fulfillment landscape. Made4net continues to operate as an independent subsidiary.

Made4net's SCExpert Suite includes WMS, transportation, delivery management, yard and labor management, all running on a single common technical platform.

Made4net currently has about 200 employees focused on warehouse management and over 850 customers globally (120 of whom are Synapse WMS customers) and short of 40 new customers in 2023. All of Synapse WMS's customers are located in North America, but Made4net's WarehouseExpert customers are well-spread geographically: 32% are in North America, 30% in Europe, 14% in Asia, 11% in Latin America and 13% in other regions. Made4net has partners and customers in approximately 40 countries. Made4net has office locations in the U.S., the U.K., Czech Republic and China. Its three key industries are 3PL, retail and wholesale distribution, with a significant number of customers in consumer products, e-commerce, food service and apparel.

Made4net's WMS was most often used, and the majority of its customers were, in Level 2 and

Level 3 environments (currently 67%), but it is increasing penetration into Level 4 environments (24%). It also has customers in Level 5 and Level 1 environments. Made4net supports all deployment methods, but 44% of its installed base remains on-premises, and the vast majority of its cloud deployments are dedicated cloud.

Strengths

- Made4net has a compelling international, go-to-market strategy and sales track record with consistent growth. More than 60% of its combined business is outside of its home geography. It has customers in almost 40 countries across 20 industries, delivers its applications in 20 different languages, and supports personalization translation features.

- Made4net has some SCE convergence, with six product categories (WMS, yard management, labor management and three transportation solutions) on a common technical platform sharing a common data model that can support enhanced execution operations.

- Made4net has a cost-effective and rapid implementation methodology that is well-suited, but not limited to, the needs of small and midsize businesses (SMBs). It claims it can do an implementation in as little as six weeks.

- For its size and target customer base, Made4net offers a respectable automation strategy supporting black box and white box integrations with WCSs.

Cautions

- While headcount continues to grow, Made4net has a small number of WMS-focused employees serving a large and growing number of customers (including its parent) compared with other vendors. It is now spread across two WMSs, which could stretch resources.

- Made4net can support larger, more complex and automated facilities. However, its experience is greatest in the midmarket sector, and it has limited resources compared with larger WMS providers. Larger customers with more complex warehouse operations must therefore be diligent in evaluating its implementation tools, capabilities and resources.

- Customers with multisite rollouts that span geographical territories must be prepared to potentially manage multiple sales or implementation partners despite Made4net's strong global partner ecosystem.

- While Made4net will continue to operate as an independent subsidiary post-Ingka Group acquisition, future customers should vet its product strategy and roadmap.

Manhattan Associates

Manhattan Associates is a Leader in this Magic Quadrant. It is the second-largest specialized supply chain suite provider in this evaluation, with 2023 company revenue of approximately $929 million. It has approximately 4,600 employees globally. Gartner estimates Manhattan Associates to have more than 1,700 customers. It is present in around 50 countries, with a combination of company-operated sales and support offices and partners. It offers a broad portfolio of SCM solutions covering logistics, omnichannel commerce, supply chain planning and supplier enablement solutions. Its core applications comprise WMS, TMS, DOM and omnichannel management, all delivered on a common microservices multitenant cloud architecture that supports extensibility and continuous upgrades.

Manhattan offers three distinct WMSs: Manhattan SCALE, Manhattan Warehouse Management for IBM i (WMi), and Manhattan Active Warehouse Management (WM), its cloud-native microservices multitenant cloud WMS, which replaces Manhattan Warehouse Management for Open Systems (WMOS). Gartner estimates the vendor has more than 100 Manhattan Active Warehouse Management customers.

Manhattan's WMSs target different markets. Manhattan SCALE, based on a Microsoft technical platform, caters to the SMB and 3PL WMS markets with Level 2 and Level 3 warehouse environments. Manhattan WMi continues to support customers that prefer the IBM i platform and is most often used in Level 3 and Level 4 warehouse operations. Manhattan Active WM caters to sophisticated, complex and often highly automated warehouse environments, and is most often used in Level 4 and Level 5 warehouse operations, but it can scale from Levels 2 through 5. It offers a unified WMS and WES, supporting high-volume and high-velocity automated operations.

Manhattan's strongest industries are retail, e-commerce, grocery, footwear/apparel, 3PL and wholesale distribution, but it has customers in a variety of industries.

Strengths

- Manhattan remains committed to building its offerings and growing its business organically, with its last acquisition in 2014, contrasting with other vendors that have grown through acquisition.

- Manhattan remains a thought leader and innovator in its core SCE markets, especially in warehousing and omnichannel management. This is combined with a highly effective operational R&D team that can translate business requirements into deliverable products of good quality and reliability.

- Manhattan was the first major WMS vendor to rewrite its WMS onto a microservices multitenant cloud architecture that supports elements of composability, extensibility and zero upgrades. Its DOM and TMS are on the same cloud architecture, offering potential for cross-functional composability to customers that acquire two or more of its applications. An example of this is its new unified transportation, warehouse and yard planning capabilities.

- Manhattan Active WM's recent enhancements to mitigate implementation complexity, such as its Manhattan ProActive solution, are beginning to be used by clients, not just consulting partners. Improvements to its unified distribution planning (for networkwide labor monitoring and tracking), and advanced core features for specific industry verticals, enhance its position for more mature and complex warehousing operations.

Cautions

- Manhattan's offering has a reputation for being expensive and complex, and it requires more effort to support than other systems. While Manhattan Active WM is versionless, mitigating upgrade costs, the TCO is often high due to the subscription model, additional cost components and implementation costs.

- While Manhattan has been growing its implementation partner network, it is still less consulting- and SI-partner-friendly than other WMS leaders, which can constrain choice and resources. Clients rely on Manhattan consultants for many aspects, such as solution design and customization. But the increased focus on client-centric extensibility for its Manhattan ProActive solution may reduce some clients' dependency on Manhattan's services team going forward.

- Manhattan Active WM is a cloud-only offering, so organizations seeking to deploy on-premises can now only do so through Manhattan's less functionally rich Manhattan SCALE or Manhattan WMi offerings.

- Manhattan lacks an explicit midmarket strategy beyond WMS. While Manhattan SCALE is purpose-built for midsize or smaller warehouse operations, other Manhattan Associates' offerings, such as DOM and TMS, are primarily targeted at sophisticated and complex environments, and are available on different technology platforms.

Mantis

Mantis is a Niche Player in this Magic Quadrant. It is a WMS suite provider headquartered in Greece with offices across EMEA and North America. In 2022, it was acquired by Germany-based logistics software and hardware provider ecovium. Mantis has been in operation since 1996 and has 125 employees focused on WMS, complemented by an additional 47 from ecovium. Partially due to the acquisition, Mantis almost met the tighter inclusion criteria for revenue this year, but it significantly exceeded the three-year CAGR criterion for customer and revenue (25% and 29%, respectively) due to sustained and rapid growth. While this research focuses primarily on Mantis and its WMS, consideration was given to the ecovium ecosystem and its impact on the vendor's longer-term prospects.

Most of Mantis' 794 WMS customers are in EMEA (with a strong presence in Central and Eastern Europe, along with Turkey, Israel and the Middle East). It also has a limited but growing presence in North America and is starting to grow in the DACH region, where the majority of the 280 legacy ecovium WMS customers are located. Its top three customer industries are 3PL, distribution and wholesale, and multichannel retail and e-commerce, with customers spread across 14 vertical industries.

Clients range from SMBs with single-site deployments having a few users, to large multinationals with multisite, multicountry deployments having hundreds of concurrent users. Its WMS — Logistics Vision Suite (LVS) — is most commonly used in Level 3 and Level 4 warehouse environments, but it scales from Level 2 to some Level 5 operations. Mantis's customer base is primarily deployed on-premises, but it has a small number of customers in dedicated public cloud environments on Microsoft Azure. It offers both perpetual license and subscription pricing.

Strengths

- Mantis has a strong local presence, partner network and growing customer base in EMEA, especially in territories where many other WMS vendors are not present. Mantis is slowly gaining new and replacement WMS customers in the DACH region, mitigating the impacts of geopolitical disruptions in some of Mantis' other markets.

- Mantis has an adaptable solution enhanced by a visual workflow and powerful rule engine, as well as a seasonal subscription offering that should support many customers' needs. The vendor also supports more advanced customization through scripting tools and APIs.

- For its size and market position, Mantis has a differentiated inventory slotting vision and offering with Slot Master, with which it can offer "slotting as a service." It has a roadmap to improve support for advanced analytics, smartglasses, usability and its architecture.

- Mantis also offers automation (hardware) as a service alongside its newer cloud hosting on Microsoft Azure and scalable seasonal subscription offering, which is well-suited to its target midmarket and 3PL customers.

Cautions

- Mantis' cloud maturity trails the market, with only 3% of customers recently hosted in a dedicated cloud environment. However, it has an ambitious vision to move to a configurable multitenant architecture in 2025. Customers should also review the maturity of the commercial SaaS offering.

- While the acquisition by ecovium has improved overall viability, ecovium itself was formed from the consolidation of 12 organizations in 2021, which may impact stability.

- Mantis is well-suited to the midmarket and EMEA, with several functional enhancements to support these markets. However, given its small number of company employees, customers considering large, complex global deployments should stringently review the level of available direct and partner implementation resources and support.

- Customers with highly automated warehouse environments should carefully map their requirements to see if LVS provides the necessary support for all scenarios. They should consider alternatives and WCS vendor capabilities alongside those of Mantis' native configuration and integration tools.

Mecalux

Mecalux Software Solutions is a Niche Player in this Magic Quadrant. It is a division of the Mecalux group, a company that has annual revenue of about $1.58 billion and over 5,000 employees across its businesses. Mecalux Software Solutions is headquartered in Spain (like its parent company) and has total WMS revenue of about $32 million, with the largest proportion of this being services-based.

Mecalux had WMS customer growth of 69 in 2023. It has approximately 1,100 live WMS customers and 437 employees focused on WMS. Mecalux Group sells and operates mainly in Europe and the Americas, with more than 21 locations there (including companies such as Interlake Mecalux), and customers in over 70 countries. It offers products and services for warehouses, ranging from manufacturing of racking and shelving, automated MHE and associated consulting on design, to the supply of warehouse control and WMS. Around 84% of its WMS customers are based in Europe (with 74% of all its customers based in Spain, France and Poland), 10% in Latin America and a small presence in North America (4%). Mecalux has direct implementation resources in Europe and the Americas, with implementation partners supporting less than 20% of its less-complex projects.

Mecalux's Easy WMS product has been developed over the last 24 years. It primarily services midmarket businesses with automated facilities and manual warehouse operations. Historically, it was most often used in Level 2 and Level 3 operations, but it scales to Level 4 and Level 5. Mecalux offers three versions of its WMS: Lite, primarily used for training and educational purposes; Enterprise for manual environments; and Robotics to support customers that require automation. The vendor offers multiple deployment options, with 31% of the vendor's existing customers on the cloud — with 60% of these on dedicated cloud and the rest on multitenant cloud. Standard and small implementations use multitenant solutions, and larger, more complex customers use dedicated, single-instance deployments. Mecalux uses Microsoft Azure for cloud deployments.

Strengths

- Mecalux targets the needs of SMBs, with approximately 1,100 live midmarket customers in manual and automated environments. It is also dedicating most of its marketing initiatives to generate software and robotics growth.

- Mecalux has a strong geographic presence in Iberia and France, with a growing presence in Latin America, while also targeting Northern Europe and the U.S. Because it is part of the larger Mecalux group, it has expansion and collaboration opportunities with the capability to serve as a one-stop shop for MHE, racking and software.

- The vendor provides its own WCS as well as WMS. It also provides some adaptable simulation and modeling tools to support its customers, including integration experience to some MESs, and some DOM capabilities.

- Mecalux has, to date, provided a relatively low TCO (software-plus service) compared with other vendors in this research, with the opportunity to make the offering easier to adapt for different levels of complexity.

Cautions

- While a good fit for the midmarket, Mecalux has less experience in complex, larger multisite enterprises with highly complex, people-driven warehouse environments. It is beginning to target higher-complexity environments, which is beginning to impact its customer growth rate and may stretch resources and impact TCO going forward.

- WMSs and packaged business applications are not Mecalux Group’s core business and represent a small percentage of its overall revenue. While WMS software is now a growing strategic area, resources may be more focused on consolidated offerings.

- The vendor’s customer presence in North America remains low at only 4%, although this accounts for 15% of revenue.

- Mecalux has lower cloud penetration (and less maturity) than other evaluated vendors at 31%, with only 43% of new customers selecting cloud overall; however, 68% of new manual customers are deployed on the cloud.

Microsoft

Microsoft is a Challenger in the Magic Quadrant. It is a roughly $226 billion global application and infrastructure megavendor, and Gartner estimates approximately $1 billion in annual revenue comes from its supply chain applications.

It offers Microsoft Dynamics 365 Finance and Supply Chain Management (which includes its WMS capabilities along with other SCM capabilities like planning, procurement and order management) as an integrated cloud ERP solution. Dynamics 365 Supply Chain Management, not Business Central, is assessed in this research.

We estimate Microsoft Dynamics 365 to have more than 1,000 warehouse management customers and a much larger number of warehouse sites where its WMS solution is deployed. Microsoft serves customers in more than 19 industries, with the largest number of customers in retail, consumer packaged goods (CPG) and distribution, and a significant and growing number in manufacturing. It has a strong global presence and serves clients across different geographies, with the largest numbers in Europe and North America, with fewer in Asia, Latin America and other regions.

It is a dedicated cloud WMS, deployed on, and benefiting from, Microsoft's Azure infrastructure, and sold on a subscription basis as part of the larger Microsoft supply chain platform offering. The WMS is not independent of Dynamics 365 Supply Chain Management, but Microsoft claims a warehouse-management-only mode will become generally available in the second half of 2024. Historically, it has been most often used in Level 2 and Level 3 operations, but the vendor claims the majority of its customers use its WMS to support Level 3 complexity warehouse operations.

Over the last few years, Microsoft has been incrementally developing advanced WMS capabilities through a couple of cycles of acquisitions and organic development. The vendor has a large number of global sales and implementation partners that sell and implement Dynamics 365, with only a small number of implementations conducted by Microsoft directly. The majority of its customers are midsize enterprises, but it is deployed at some larger enterprises.

Strengths

- Microsoft Dynamics 365 Supply Chain Management (WMS) is a suitable shortlist candidate for many Microsoft Dynamics 365 customers because it offers sufficient functionality, ease of use and integration with other capabilities in Dynamics 365 ERP.

- Microsoft offers the ability to easily scale users for organizations already in the Microsoft Dynamics 365 ecosystem. This can make pricing (mostly based on user roles or devices) highly competitive compared to other vendors.

- Microsoft's broader technology ecosystem means customers can benefit from capabilities such as Microsoft Fabric, Microsoft Power Platform, Power BI, its Microsoft Azure cloud platform, and its ISV partner network.

- Among WMS vendors in this Magic Quadrant, Microsoft is one of the early adopters of GenAI-enabled capabilities through its Copilot. Microsoft is also introducing process mining capabilities for WMS.

Cautions

- Microsoft's WMS is not currently independent of Dynamics 365 Supply Chain Management. Gartner suggests customers should monitor the vendor's plans to offer the WMS independently and potentially consider a suite approach in the interim.

- Microsoft's WMS is not suitable for the most complex and multisite 3PL environments because it lacks extended functionalities, such as multidivision inventory per site and 3PL billing.

- Customers should scrutinize partners' warehousing and fulfillment experience and capabilities due to Microsoft's very large number and diverse range of sales and implementation partners.

- Microsoft lacks advanced core (complex allocation and picking) and extended capabilities (such as labor and yard optimization) when compared to leading WMS providers.

Oracle

Oracle is a Leader in this Magic Quadrant. It is a global application and infrastructure megavendor with over $51.9 billion in total revenue, of which software revenue was $40.9 billion (2023 calendar revenue).

Gartner estimates that Oracle has the second-largest market share in the SCE software market that includes WMS software, with SCE software revenue of $693 million in 2023, of which approximately $280 million can be attributed to WMS software.

Oracle offers multiple WMS products, but this research focuses exclusively on Oracle Fusion Cloud Warehouse Management (i.e., Oracle Warehouse Management), which is Oracle's primary go-forward WMS. From its inception, this solution has been a pure multitenant SaaS/cloud WMS. It is integrated with Oracle's other cloud SCM offerings: Oracle Fusion Cloud Supply Chain & Manufacturing, Oracle NetSuite and Oracle Retail Merchandising Operations Management Cloud.

Oracle's portfolio includes Oracle Fusion Cloud Inventory Management for basic materials management and Level 1 warehouse functionality, as well as other cloud solutions for order management, manufacturing, transportation and sales. Although Oracle Warehouse Management is integrated with these solutions, it is a separate product. The vendor's strategy is to maintain this solution as a separate product so it can also be integrated with non-Oracle applications (approximately 21% of last year's new bookings). Oracle has over 20 partners responsible for 80% of Oracle Warehouse Management implementations, ranging from small boutiques to large global consultancies. Oracle's customers are well-distributed internationally, with 38% in North America, 33% in Latin America, 20% in EMEA, and 9% in Asia/Pacific. We estimate that Oracle has 586 Oracle warehouse management customers, having added 30 new customers in 2023, with customers headquartered in 45 countries.

Oracle claims its warehouse management customers are spread well across Levels 2 through 5 warehouse operations, with the largest amount present in Level 3, and approximately 20% of customers having a facility with some automated MHE.

Strengths

- Oracle has one of the most coherent SCM cloud strategies and the most mature cloud WMS offering of vendors in this research. It has made notable accomplishments with cloud, such as claiming zero downtime, and has enhanced tools, such as its WMS Support health analyzer.

- Oracle continues to advance its next-generation user experience (UX), called Redwood, further into its WMS. It also has its Visual Builder mobile application development platform and its conversational natural-language Digital Assistant.

- Oracle's WMS technical architecture is differentiated, supporting a platform as a service (PaaS) layer and lists approximately 500 WMS-focused APIs, enabling customers to build converged applications. Furthermore, it leverages other Oracle technologies, such as AI, machine learning (ML) and Internet of Things (IoT), to support WMS needs, such as predictive and fulfillment dashboards.

- Oracle's WMS has a presence in 18 industries supported by a variety of inventory attributes. It continues to be strong in fulfillment-intensive industries, notably retail and consumer goods, which represents 35% of its customer base. However, it is enhancing cross-application integration to expand its industry reach into verticals, such as industrial manufacturing.

Cautions

- Oracle's WMS is not as functionally broad or deep as other Leaders in this Magic Quadrant, especially for extended WMS. Some elements are limited, and others require additional Oracle applications to support more advanced needs. Oracle focuses more on making APIs (approximately 500) available to integrate with customers' other systems and applications.

- While Oracle has a higher proportion of stand-alone WMS customers than most other megavendors, there is greater strategic focus on Oracle suite sales (especially internationally) and relative growth of stand-alone WMS customers has slowed somewhat.

- While Oracle's WMS can be, and is, integrated with non-Oracle applications (ERP systems), Oracle relies on SI partners to build these integrations. They can then be certified on Oracle Cloud Marketplace.

- Eighty percent of Oracle's WMS implementations are performed by SI partners. While most have strong technical competencies, customers should vet their depth and breadth of warehouse expertise (such as design, layout, process best practices and automation integration).

Reply

Reply is a Visionary in this Magic Quadrant. It offers an array of IT services, with a primary focus on consulting, SI, digital services and cybersecurity. Reply has total annual company revenue of more than $2 billion.

It offers warehouse management applications and services, with approximately $41 million total WMS revenue. About 350 employees support its two WMSs: LEA Reply, a multitenant cloud WMS developed in a contemporary microservices architecture; and Click Reply, its legacy WMS.

Reply has 168 LEA Reply customers and 152 for Click Reply, LEA has surpassed Click customers for the first time in 2023, and has a significantly faster growth rate. Reply's WMSs are deployed in 33 countries, with 75% of WMS customers in Europe, 8% in North America, 11% in Latin America, 3% in Asia, and 3% in other regions. Its WMS customers span multiple industries: LEA Reply is strong in retail, e-commerce, food and beverage, and fashion and luxury; Click Reply is strong in automotive, industrial, service, high tech and 3PL.

LEA Reply generally caters to a range of warehouse-centric network environments and is most often used in Level 2 and Level 3 warehouse operations. However, it can scale up to low Level 4 operations and has a growing presence in Level 5 warehouses (13%). LEA Reply is the vendor's multitenant cloud offering built on its contemporary microservices architecture. Click Reply is best suited to multisite, complex Level 3 and Level 4 warehouse operations, often using material handling automation, and can scale to Level 5 operations (26%). Reply can host its on-premises Click Reply WMS as a dedicated cloud solution.

Strengths

- Reply's WMS business is part of a large, global organization, with strong consulting and SI capabilities from about 14,800 employees based in 19 countries and 66 locations. As such, Reply's solution delivery, customization capabilities and capacity are greater than comparably sized, stand-alone WMS providers.

- Reply remains an innovator that prototypes, commercializes and delivers new capabilities at a greater rate than most other WMS providers. These include AI-driven analytics and implementation, smart loading, and computer-vision-aided picking enabled by its LEA Reply Digital Platform.

- Reply leverages an expansive set of strategic technology partnerships, some for its internal product development and some as a direct deliverable to its customers.

- Unlike most vendors, Reply has demonstrated both technical and commercial composability by assembling only the required microservices across its applications into new packages for e-commerce, in-store and manufacturing customers.

Cautions

- Reply remains primarily focused on Europe (mostly Italy and the U.K.) for WMS, with 75% of its customers and more than 65% of its employees in Europe. Reply is directly involved in all projects, and customers are fully dependent on Reply for technical services.

- Packaged WMS software is not Reply's core business, representing less than 3% of its revenue; its primary business is consulting and SI services. With local offices in key geographies, customers should expect to receive all services from Reply.

- Reply offers two distinct WMSs, with notable overlaps in functionality. They also have significant differences in technical architecture, adaptability, cloud deployment approach and maturity. LEA Reply is the more recent and go-forward WMS. In some areas, it is still working to match some industry-specific functionalities of Click Reply, such as in automotive.

- While LEA Reply customers can benefit from Reply's overall resources and expertise, the Reply group is a collection of over 150 branded offerings, so implementation resources and support will still need to be vetted.

SAP

SAP is a Leader in this Magic Quadrant. It is a global software megavendor with approximately $33 billion in total annual revenue ($25.9 billion in software revenue). Gartner estimates that SAP's SCM software revenue was $6.4 billion, of which $450 million can be attributed to WMS software.

This research focuses exclusively on the SAP Extended Warehouse Management (SAP EWM) solution. SAP does, however, still support SAP Warehouse Management (LE-WM) — its legacy WMS — which is seamlessly integrated and shares logic with SAP ERP Central Component (ECC).

SAP EWM remains strongest in Europe, with 58% of its customers in EMEA, 19% in North America, 15% in Asia and 8% in Latin America. SAP has close to 2,400 EWM customers (more than half now deployed on S/4HANA EWM), and has diversified vertical coverage with customers in 24 industries. It has strengths in consumer goods (its strongest industry), retail (including e-commerce, grocery and food service), automotive, mill products, mining, wholesale distribution and industrial/construction machinery.

SAP EWM is most often used in Level 2 and Level 3 warehouse operations, but it can scale up to Level 5. However, it is generally too complex and not appropriate for stand-alone Level 1 operations. The vast majority of EWM customers are deployed on-premises (we estimate over 80%), with almost 15% on dedicated cloud (hosted), and we estimate only 5% on its newer multitenant, public offering. More than half of SAP's dedicated cloud customers deploy on a stand-alone rather than embedded EWM instance. Most of its cloud deployments are for new sites and the vast majority of its multitenant cloud customers are net new EWM customers.

Strengths

- SAP has more total WMS customers than any other WMS provider, with more than 7,000 between its legacy LE-WM and EWM. EWM has one of the largest customer bases on a single WMS application, aiding its continued development. SAP also has a substantial global presence as well as global go-to-market and deployment capabilities, with EWM customers in 65 countries.

- EWM, by offering sufficient functionality, is a suitable shortlist candidate for many SAP (SAP ECC or SAP S/4HANA) customers. For MHE integration, users of EWM Advanced have the option to deploy SAP Material Flow System (SAP MFS), typically when deploying a decentralized version of EWM.

- SAP has a compelling platform strategy for addressing SCE convergence. EWM offers integration with ECC and S/4HANA, as well as other components, such as: transportation management, global trade compliance, quality, plant maintenance, field logistics, environmental, health and safety, and some manufacturing integration capabilities.

- SAP has a large global ecosystem of implementation and consulting partners. This includes global SIs with EWM practices, MHE vendors' EWM practices, and a number of specialist EWM consulting organizations who also offer extensions available to customers on SAP Store.

Cautions

- SAP EWM remains best suited for companies already using SAP ERP (ECC or S/4HANA) as a platform. Non-SAP ERP customers should do detailed assessments to determine suitability for stand-alone WMS implementations and integrations with non-SAP systems.

- Mainstream support for SAP LE-WM will end in 2025 for S/4HANA and 2027 for ECC. This will compel existing SAP WM customers (we estimate 5,000) to migrate — not upgrade — to something new (such as EWM) or use Stock Room Management for S/4HANA, a less functionally rich version of SAP's current LE-WM product.

- EWM's TCO tends to be higher than that of comparable WMSs. Its pricing structure based on goods receipt, goods issued, and production staging transactions can be high for companies with high transaction volumes. Also, implementations are mostly performed by third parties, and costs and schedule overruns can be high. Due diligence is also required on mobile UI options.

- SAP's EWM cloud vision and strategy is complex compared with many of its competitors. It has numerous deployment options, some emphasized for particular customer types. While cloud deployments are growing, we estimate only up to 20% of SAP's EWM customers to be cloud-deployed across four hyperscalers and SAP, with our estimate of only 5% of these on its newer multitenant option.

Softeon

Softeon is a Visionary in this Magic Quadrant. Softeon is a small, SCE solution vendor in business for 25 years with total annual WMS revenue of $50 million. In 2022, Warburg Pincus acquired the majority share of Softeon; and in March 2023, Softeon finalized its acquisition of GetUsROI and its AttunedLabs software development arm. The latest acquisition added new capabilities through its LUCA platform, which provides low-code and prebuilt integrations with a variety of material handling systems and automation vendors.

Softeon is based in North America, which accounts for the majority of its customers and revenue (83%), plus about 7% in Europe, 6% in Latin America, and 4% in Asia and other regions. Although Softeon's roots are in warehousing, it has a noteworthy SCE convergence vision and portfolio that includes DOM, some transportation, direct store delivery and planning on a common technical platform.

Softeon's customer base (182) is modest compared with most vendors in this research. Some of these customers have very large and complex multisite WMS implementations (Levels 4 and 5), while others, including some of the cloud users, are quite small and less complex (Level 2) operations. The vendor is particularly strong in 3PL (about 30% of its customers) and is growing in other industries, such as e-commerce (about 16%), retail (about 10%), apparel (about 10%) and consumer goods (about 6%). More recently, it has added capabilities and focus on healthcare logistics, and has about 8% of its customers in pharmaceuticals and healthcare services.

Softeon is most often used in Level 3 and Level 4 warehouse operations, but it can scale from Level 2 to highly automated Level 5 operations. The vendor combines WMS and WES on a common platform, supporting nonautomated and more automated operations. It offers the same software in three forms — on-premises, dedicated (single-instance) cloud and multitenant cloud — and generally prefers a subscription-based pricing model. About 90% of its business is now cloud (80% of which is dedicated cloud). All new clients deploy on the cloud with a subscription model.

Strengths

- Softeon is one of the few WMS providers offering fixed-price implementations that are generally lower in cost than other vendors. These are supported with strong implementation tools, such as drag-and-drop editors and wizards used by the vendor and its partners, and its structured solution delivery methodology.

- Softeon offers some differentiated capabilities that include embedded and independently offered WES capabilities, and end-to-end work orchestration. It also offers native integration to, and optimization of, technologies such as voice, put walls and robotic pick to cart.

- Softeon is beginning to demonstrate the benefits of combining the strengths of its newly acquired LUCA solution to ease integration with its existing WES capabilities. It also delivered several improvements to its core WMS, along with software delivery methodologies and improvements in cloud hosting, scalability and performance fine-tuning.

- Softeon is increasing its focus on enhancing adaptability and agility with planned improvements in product UI, adoption of predictive analytics and ChatGPT-enabled integrations in its LUCA platform.

Cautions

- Softeon remains largely an Americas-centric organization in practice and in strategic direction, with the vast majority of its revenue and customers in North America, and some rollouts for its large global customers.

- Clients have historically praised Softeon's customer-centricity. Changes in ownership and loss of some key people mean this characteristic must be watched, despite employee retention now being over 90%.

- The dynamics of Softeon's longer-term viability as an independent company changed with Warburg Pincus taking majority ownership. Private equity firms tend to hold assets for around three to five years, which makes a financial transaction likely in that time frame.

- While Softeon has a strong directional approach to adopting robust architectural elements, such as containerization and data as a service, when compared to Leaders in the Magic Quadrant, it still lags in true multitenant cloud offering.

SSI SCHAEFER

SSI SCHAEFER IT Solutions is a Challenger in this Magic Quadrant. It was formed in 2017 from various software divisions of SSI SCHAEFER Group, a company with a more than an 85-year pedigree in manufacturing and warehousing materials, equipment and material handling automation. In January 2024, the vendor went through a further restructure with the formation of a new legal entity — SSI Schaefer Software Development, which has a particular focus on WAMAS product development and standards. This followed the installation of new executive management in October 2023. In March 2023, it completed its full acquisition of DS Automotion, aiding its material handling integration capabilities.

SSI SCHAEFER provides its own WMS, called WAMAS WMS, which can be offered independently of material handling systems and to purely manual warehouse operations.

Its 434 WMS customers are global, with 76% based in Europe, and most of these clients based in the DACH region. Non-Europe-headquartered customers are split fairly evenly in other regions of the world. Almost 200 of its 690 WAMAS employees work in WMS research and development. The solutions are offered in a variety of combinations of MHE, WCSs and WMSs, and no part is mandatory to operate another. All WMS implementations are carried out by local subsidiaries, not partners, and, where required, in conjunction with engineering companies. SSI SCHAEFER's intralogistics business supports its WMS with a portfolio of consulting, implementation and SI services. It also offers consulting services for SAP EWM, enhanced by its majority stake in SWAN.

Approximately 93% of WAMAS deployments are in medium- to high-complexity environments, with 39% in very highly automated Level 5 environments. To date, all WAMAS deployments remain on-premises with a perpetual license model.

Strengths

- SSI SCHAEFER has a strong European footprint and is supported by the global presence of its parent group and local SSI SCHAEFER offices, with WMS customers in 46 countries. It also has a large workforce focused on WMS, with over 100 of its 690 WMS- and WCS-focused employees dedicated to manual and multisite warehouse operations.

- SSI SCHAEFER is part of a growing acquisitive group, reflected by its March 2023 full acquisition of DS Automotion. The vendor offers a variety of deployment models and can deploy and integrate its WMS/WCS and MHE solutions as a package (including to all acquired organizations) or independently coordinated with solutions from other vendors.

- Despite a focus on other challenges, innovation continues. The vendor is investing in product portfolio enhancements and data-driven business and predictive models primarily through its subsidiary Supply Brain (formerly called FPrimeZero).

- The vendor is a stable, family-owned organization, supported by a group with over 85 years of experience in warehouse management, and extensive support for warehousing materials, MHE automation and industrial environments.

Cautions

- SSI SCHAEFER's cloud deployment capability lags that of all other vendors in this research, with all of its customers currently deployed on-premises. While internal testing of a cloud option for simpler environments was completed some time ago, there are no live customers. The rollout may have been put on hold following the 2023 cyberattack on the vendor.

- New customer growth and presence in manual environments remains slow. It also lacks a partner implementation ecosystem, limiting customer choice.

- While the recent restructuring, acquisitions and management changes may provide opportunities, clients and prospects should scrutinize details that the vendor shares of its go-forward warehouse software capabilities, given the broad range of projects envisioned.

- The vendor lacks depth in some traditional extended capabilities that would be required for a high Level 4, people-driven environment. However, it can support lower-complexity manual environments and is optimized for highly automated Level 5 environments. As such, WMS pricing can be significantly higher than for other WMS solutions despite a new pricing model intended to offer greater flexibility in installation and operating costs.

Synergy Logistics

Synergy Logistics is a Niche Player in this Magic Quadrant. It is a small software company focused exclusively on WMS and directly related products, such as mobile robots, with WMS license/subscription revenue of $33 million. The vendor was formed in 1972 and is based in the U.K., with additional offices in the U.S. and Spain.

Synergy has approximately 250 WMS customers. Revenue and customers are nearly equally divided, with 55% of its customers based in Europe, 43% in North America and a small but growing number in other regions. It has more than 100 employees exclusively focused on WMSs, with most in the U.K. and North America. It also has a presence in the Netherlands and is expanding into Singapore. Its clients range from SMBs to global organizations, but its strength and differentiation are strongest in the SMB market, with almost 80% of its customers categorized as SMBs. Synergy's top three industries — representing 63% of its business — are e-commerce (34%), 3PL (22%) and wholesale distribution (11%), but it is growing in other industries.

Synergy's WMS, SnapFulfil, is most often used in Level 2 and Level 3 warehouse operations. However, it can scale down to high Level 1, and up to moderately complex Level 4 operations that don't need broad, extended WMS capabilities. Synergy is one of the longer-tenured cloud WMSs, offering a rapid deployment, SaaS, and dedicated cloud solution.

Strengths

- SnapFulfil WMS is built around a robust and flexible rule engine that allows high levels of noncode adaptability to support customer-specific and vertical-industry-specific requirements. This enables the vendor's rapid implementation methodology.

- For companies considering robotics, Synergy offers SnapControl, which provides integration, work prioritization and allocation capabilities to better orchestrate tasks among humans, devices and robots. It also can be deployed independently of its WMS. Synergy has also further expanded its technology partners ecosystem.

- Synergy is mature in dedicated cloud deployments and offers favorable service and disaster recovery service-level agreements (SLAs) when compared to many other vendors. It also offers a differentiated and scalable seasonal pricing strategy. This allows companies to flex their number of concurrent users and associated costs based on seasonal demand variations. For some customers, it offers a no-capital-expenditure, turnkey-managed service deployment model.

- Synergy has a video training and remote implementation solution called SnapBuddy. It overlays instructional, interactive guidance to end users of the application. It also offers configuration instruction and real-time training and feedback to superusers and administrators.

Cautions

- While Synergy is expanding its ecosystem of technology partners, it lacks a strong network of implementation partners. Most customers are dependent on the vendor for consulting services, and these resources could be taxed given its small number of employees.

- Most of its customers are in the U.K. and North America, where the majority of its resources are domiciled, with modest growth in other countries. Deployments outside these two geographies must either be performed by the company or require remote implementation services from the vendor.

- The vendor is in the process of migrating its WMS into a more modern architecture to further enhance usability, adaptability and functionality. Existing customers should request a roadmap to understand migration impacts on their operations.

- Synergy is strongest in the SMB sector, with nearly 80% of its customers in this space. While it is looking to move upmarket, its deployment strategy could be a constraint. Although its self-implementation tools and rapid deployment strategy can mitigate risks in simple WMS environments, this can stretch resources as large, more complex projects require dedicated resources for multisite deployments.

Tecsys

Tecsys is a Challenger in this Magic Quadrant. It is a vendor of warehouse management and companion SCE capabilities, with approximately $120 million in WMS software and services revenue and a three-year CAGR for revenue of 34%. Most of its revenue is related to WMS and the company has 40+ years of experience in warehousing and services, with about 340 employees focused on WMS.

Tecsys has 231 WMS clients, with 85% of these in North America. About 17% of its customers are in Canada and 68% in the U.S. Tecsys has a limited international presence, with about 13% of its customers in Europe and 1% in Latin America. The vendor has a strong market position in healthcare and life sciences, with 33% of its customers and about 56% of its pipeline in these industries. It is continuing to expand its footprint in hospital pharmacy and pharmaceutical distribution, with around 15% of its pipeline in the pharmacy vertical. Other key industries for Tecsys are 3PL, industrial and wholesale distribution, each contributing about 14% to its industry coverage. It also has a mix of SMB and large customers, with over 50% categorized as midsize to large organizations.

Tecsys is most often used in Level 3 and low Level 4 warehouse operations, but it can handle Level 2 warehouse operations with some specialized Level 1 capabilities — notably, in healthcare environments. Tecsys recently has also been experimenting with AI-driven optimization algorithms and intelligent decision-making support in its WMS. Most of its implementations are offered in a six-to-eight months' time frame and are direct, but almost one-third are now supported by its growing partner network. Historically, the majority of Tecsys's deployments have been on-premises, purchased as software licenses. For new deals, cloud/SaaS is now the preferred deployment option with cloud penetration over 90%, but 100% of its cloud deployments are dedicated, single-instance cloud.

Strengths

- Tecsys has strong vertical industry differentiation. It is differentiated in healthcare, where it offers specialized capabilities, compliance (such as for new Drug Supply Chain Security Act [DSCSA] guidelines), domain expertise, customer experience and healthcare-focused partnerships, such as with Workday, Oracle and TraceLink.

- Tecsys has a relatively broad suite of SCM capabilities, including core and Extended WMS, demand forecasting, procurement, DOM and point of use (POU). It has also rearchitected its database to enhance its 3PL capabilities and support for consolidation centers.

- Tecsys offers robust extensibility with its Itopia platform, which is aimed at providing low-code development and API-based integration to support unique custom requirements. It is one of the few vendors in this Magic Quadrant that offers embedded low-code application platform (LCAP) capabilities, such as database integrity, security and upgrade safe extensions.

- Tecsys is focusing on improving its automation integration strategy by partnering with specialized low-code integration technologies and MHE providers, such as SVT Robotics, Locus Robotics, Matthews Automation, and Iguana for healthcare-specific equipment integration.

Cautions

- Tecsys has one of the smallest global footprints of vendors in this research, with 85% of its revenue coming from the vendor's home region of North America and only 13% from Europe. Despite significant revenue growth, its net new customer growth is relatively low.

- Almost all of the vendor's professional services resources (80%) and capacity are based in North America, and some clients report constraints on implementation resources. Tecsys is recruiting and has developed a formal alliances program, adding specialist partners to mitigate this difficulty.

- Although Tecsys' solution provides notable flexibility and adaptability with features like its powerful rule engine, this flexibility at times adds complexity. It requires customers to ensure they have the capacity to staff and train their internal resources effectively to support this.

- Tecsys' SCE convergence vision and strategy are appealing in healthcare, but its convergence capabilities in other areas, such as production or multimodal transportation, trail leading providers.

Vinculum

Vinculum is a Niche Player in this Magic Quadrant. Headquartered in India, with additional locations in the Middle East, Southeast Asia and the U.S., Vinculum is a provider of a suite of cloud/SaaS-based solutions. The solutions are aimed mainly at e-commerce and omnichannel retail, darkstore/backstore fulfillment and retail-focused 3PLs. B2C and e-commerce order fulfillment play a major part in the WMS. Vinculum also has a modest presence in B2B and nonretail 3PL (10% to 15% of its business).

In addition to WMS, its Vin eRetail suite covers omnichannel product information management (PIM), automated listing to marketplaces, omnichannel sales order management, returns, payment reconciliations, merchandising, omnichannel loyalty, and real-time view of inventory in stores and warehouses.

Vinculum did not meet the qualification criterion for WMS revenue but is included because it exceeded the criterion for customer and revenue growth, with a three-year CAGR of 40%. Vinculum claims about 1,500 total customers across its suite, with 800 pure WMS customers, excluding "freemium" users. Most of its customers (approximately 90%) are in Asia (primarily in India and Southeast Asia). It has around 60 employees focused on WMS, and serves customers in different industries, with its main focus on retail (40%) and e-commerce (33%).

Vinculum is best suited for emerging or small and midsize e-commerce and multichannel retailers and brands, or regional operations of larger organizations. It is one of a set of application vendors offered as part of Amazon Digital Suite to help India's SMBs digitize their operations. Vinculum's WMS is best suited for paper- or mobile-based, manual Levels 1 through 3 warehouse operations. It launched its cloud/SaaS-based WMS — Vin eRetail WMS — running on AWS in 2013, and the majority of its customers are multitenant cloud, with the remainder dedicated cloud.

Strengths

- Vinculum has strong operations and significant customer growth in the emerging markets of India and Southeast Asia. It also has a strong integration framework, where it leverages APIs to connect to more than 80 marketplaces, over 200 web stores and 3PLs.

- Vinculum's pricing model, lower complexity and relatively quick implementations make it a compelling option for organizations to rapidly set up fulfillment operations in the region. It has further adapted its pricing to suit customers at different stages of maturity. Most customers (80%) follow an order-based subscription model; 15% with potentially higher volumes and complexity can request user-based pricing. Those uncertain on growth are offered gross merchandise value (GMV)-based pricing.

- Vinculum is specifically focused on, and well-positioned in, multichannel e-commerce order management and fulfillment across a variety of product categories. Its cloud/SaaS application suite offers customers the ability to rapidly scale and connect with multiple marketplaces, some of which offer benefits to brands using Vin eRetail WMS.

- Vinculum has introduced several product and business capabilities over the last two years, including enhancements in D2C, B2B and prebuilt integrations, as well as improving security and performance.

Cautions

- Although strong in India, the Middle East and Southeast Asia, Vinculum continues to struggle to effectively penetrate North America and Europe, with limited direct and partner support and implementation resources, and no customers or resources in Latin America.
- Vinculum has the lowest revenue and number of WMS-focused employees among vendors included in this Magic Quadrant. Although its customer numbers continue to grow, most of these have been at lower cost within its primary markets.
- Vinculum offers less functionally rich core and fewer extended capabilities than other vendors but continues to enhance its features.
- Vinculum’s WMS is principally aimed at multichannel and omnichannel retail and brands deploying e-commerce, with over 80% of its customers either specifically in these industries or 3PLs servicing these industries.

Vendors Added and Dropped

We review and adjust our inclusion criteria for Magic Quadrants as markets change. As a result of these adjustments, the mix of vendors in any Magic Quadrant may change over time. A vendor's appearance in a Magic Quadrant one year and not the next does not necessarily indicate that we have changed our opinion of that vendor. It may be a reflection of a change in the market and, therefore, changed evaluation criteria, or of a change of focus by that vendor.

Added

Dematic and Deposco were added as vendors to this year’s Magic Quadrant due to now meeting the inclusion criteria for geographic presence and customers.

Dropped

No vendors were dropped from this year’s Magic Quadrant.

Inclusion and Exclusion Criteria

The 2024 Magic Quadrant for Warehouse Management Systems focuses on holistic WMS suites and global offerings. To be included in this research, a vendor must have a credible WMS product that fundamentally supports core WMS capabilities and some extended capabilities. The vendor must also exhibit a vision for WMSs in at least moderately complex warehouse environments. In addition to the other criteria, a vendor must demonstrate a modest global presence by generating at least 10% of its revenue and customers outside of its home geography. This research focuses on independent WMS offerings, so a vendor must routinely sell and implement its WMS separate from other non-software-related services or products that it offers. Furthermore, a vendor can qualify if it has a demonstrably differentiated and unique focus and market position in a specific vertical industry.

Vendors must meet the following criteria for inclusion:

- The vendor must provide **a holistic and credible** WMS suite that fundamentally supports:

  - **All core WMS capabilities** (e.g., receiving, put-away, stock locating, inventory management, cycle counting, wave planning, order allocation, order picking, replenishment, packing, shipping).
  - **Natively supports mobile devices** along with bar code scanning and possibly RFID or other scanning/sensing technologies.
  - **Supports some extended capabilities** (e.g., labor management, slotting, task interleaving, work planning and optimization, yard management, voice picking, parcel manifesting, value-added services, light manufacturing/kitting and third-party logistics [3PL] billing).
- **Significant WMS market presence:** For the previous fiscal year, the vendor must have:
  - **Combined WMS license/subscription and services revenue** of greater than $25 million for the previous 12 months. Only license/subscription and services associated with the vendor's packaged WMS implementations are considered. Revenue from hardware and/or ancillary consulting services is excluded.
  - **Or:** The vendor must have a three-year compound annual customer and revenue growth rate of at least 20%. This is because customer and revenue growth are reliable indicators of vendor momentum and sustainability.
  - **And:** The vendor must have at least 180 live individual customer references (named customer references, not individual warehouse sites) holistically using the version of the WMS solution being evaluated.
  - **And:** The vendor must have sold at least 15 net new customers (not warehouse sites) in the previous 12 months.
  - **And global presence:** The vendor must receive greater than 10% of its WMS revenue and have greater than 10% of its customer base sold, implemented and headquartered outside of its home geographical region (for example, North America, Europe, Asia or Latin America).
  - **And:** The vendor must have direct or affiliate sales and implementation resources in three or more geographical regions (for example, North America, Europe, Asia, or Latin America).
  - **And:** The vendor must have more than 20% of its WMS business stand-alone where WMS is sold and implemented independently of its other non-software-related services or products. And that this WMS is sold separately, not simply as a part of a combined WCS and WMS or WES and WMS or service offering.
- **Or significant enterprise business applications software presence:** The provider must be an application megavendor with greater than $1 billion in enterprise application software license revenue (including non-WMS) in the previous fiscal year. This is because many end users are interested in the WMS offerings of the major application suite vendors. The WMS component must be part of a suite that is active in the market and provides more than basic core WMS

capabilities. The vendor must have sold at least 25 net new named WMS customers in the past 12 months as well as have at least 180 live WMS customers (not warehouse sites).

- **Or a unique and compelling market position in a specific vertical industry:** The vendor must have a unique, compelling and differentiated market position in a specific vertical industry where this differentiation is important to buyers. New customer win rates, vendors appearing in Gartner client inquiries in these industries, explicit vendor focus in these industries, client references and the vendor's reputation in the industry are considered. The vendor must also meet the revenue and number of customers criteria (i.e., WMS revenue of greater than $25 million and at least 180 live individual customer references [not warehouse sites] using the WMS).

We do not include stand-alone, specialist component providers of solutions, such as yard management, slotting, labor management, parcel manifesting, optimization tools, radio frequency (RF), voice, RFID, warehouse control systems, robotics integration solutions or warehouse execution systems that are the middleware between the WMS business application and material handling equipment, (see **Use the Right Software to Support Warehouse Automation and Robotics**, and **Warehousing and Fulfillment Vendor Guide**). However, we do consider a WMS vendor if it offers a native warehouse control system as part of its WMS offering. In addition, because they are not relevant as stand-alone WMSs, we do not evaluate every ERP, MHE, OMS or suite vendor's WMS capabilities, even though these might address a particular customer's WMS needs.

Some vendors with strong WMSs, but whose businesses are principally in a single geography, did not qualify for this Magic Quadrant. This, in particular, impacted a number of WMS vendors based in Asia and Europe (see **Europe Context: Magic Quadrant for Warehouse Management Systems** and **Asia/Pacific Context: 'Magic Quadrant for Warehouse Management Systems'**). Please see also **Midmarket Context: 'Magic Quadrant for Warehouse Management Systems'** and other WMS context research for more insight on vendors with relevance for those geographic regions and industries.

Evaluation Criteria

Ability to Execute

Depth and breadth of WMS functionality remain very important factors in choosing a new WMS, especially for companies replacing aging legacy systems. Increasingly, the technical architecture of the WMS is an important consideration for new WMS customers where adaptability, extensibility, user experience and cloud are priorities. Furthermore, while companies are buying WMS applications, they are also investing in a long-term relationship with a vendor, which increases the importance of operations. Consequently, while the breadth and depth of the WMS product remain important, customer service and operations have nearly an equivalent impact on a vendor's overall Ability to Execute. Gartner finds that customers place high importance on a vendor's ability to provide the services and support necessary to effectively implement and utilize the WMS. Service is a notable differentiator among various WMS providers, and it contributes to implementation success and overall customer satisfaction, as well as impacting upgrade cycles and TCO. Historically, WMS vendors have provided the majority of implementation services. However, certain, but not all, vendors have robust ecosystems of implementation partners that can supplement or replace the vendor's service capabilities.

The criteria used for evaluating a vendor's Ability to Execute include:

- **Product or Service —** Because of the intense transactional nature of warehousing systems, Gartner places a high value on both an offering's product and service. WMS vendors' product breadth, depth and technology are highly rated components of their Ability to Execute. Therefore we give this criterion a high weighting. The WMS market is mature and remains highly competitive, with core WMS capabilities approaching parity across vendor offerings. However, notable differences remain in extended WMS capabilities (see **Apply an Architectural Framework to Stratifying Warehouse Management Systems**). We evaluate the WMS products across a range of criteria, including technology and functionality. We consider the depth and flexibility of core capabilities such as receiving, put-away, picking, shipping, replenishment, quality assurance and cycle counting. We also consider the existing breadth of the application's extended WMS capabilities, such as value-added services and light manufacturing, labor management, slotting, yard management, dock scheduling, automation interfaces and resource/work planning. Users with the most complex requirements and sophisticated operations are the most interested in a vendor's support for extended WMS capabilities, which remains a differentiating factor across various WMSs. Less sophisticated or less complex users are more focused on core WMS capabilities and often require less functional breadth. Thus, they could be supported by a wide variety of solutions. Because of the importance of usability, adaptability and flexibility, we place increased importance on the technical architectures of each WMS. Due to the growing demand and prevalence of cloud WMS, we also place emphasis on the vendor's cloud strategy, maturity of its cloud service offering and the technical architecture of the vendor's cloud WMS offering.

- **Overall Viability —** Near- and long-term investment risks are important issues for buyers, so vendor and product viability remain important criteria. Given the high switching cost, long time to value, challenging ROIs and long life span of typical WMS implementations, viability is again a high-importance consideration. Therefore we give this criteria a high weighting. Although viability is important, it should not overshadow product fit, vendor expertise, TCO, and service and support. Some of the vendors are quite small. While there are some viability concerns given their size, all other factors being equal, viability alone should not preclude users from considering these vendors.

- **Sales Execution/Pricing —** Sales execution and pricing are growing differentiators in the WMS market, especially internationally in emerging geographies. Sales execution and pricing are important to a vendor's performance and are notable indicators of its Ability to Execute. Therefore, this factor has been given a high weighting. Price variability is significant with cloud-based WMSs, where subscription-based pricing models dominate, and de facto cross-industry standards have yet to solidify. Because this is a global evaluation, the ability of a vendor to support global sales and go-to-market channels is also increasingly important. We consider vendor capabilities for supporting multinationals choosing global solutions as well as for customers buying in select geographies.

- **Market Responsiveness/Record —** The WMS market continues to evolve rapidly, and WMS solutions must keep pace to remain relevant. This makes market responsiveness and track record meaningful. We assess the historical and current performance of vendors in adding to or enhancing their WMS solutions to keep up with the changing wants and needs of WMS users. As such, we give market responsiveness/record a medium weighting.

- **Marketing Execution —** While marketing promotion is important, we focus more on a vendor's product marketing. We look at the vendor's product management team, processes and product roadmap to support ongoing innovation, track record of delivering on plans, and ability to respond to market forces. We also look at a vendor's visibility in the market and how often they organically appear on buying long lists, which is indicative of a compelling go-to-market strategy and execution. As such, we give marketing execution a medium weighting.

- **Customer Experience —** A WMS vendor's ability to use and exploit functionality to drive business value and provide a suitable customer experience is a critical element of its Ability to Execute. We consider a vendor's track record with complex and sophisticated customers, but also its ability to effectively and efficiently service less-demanding customers that make up a large percentage of the overall WMS market. Also important is client satisfaction with a vendor's products and services, how much warehousing experience the vendor has and how it can employ this to help customers fully exploit their WMS investments. Although client satisfaction is always important, we also consider the nature of the relationships that vendors establish with clients, and whether these are operational or strategic. The size and growth of a vendor's client bases locally and internationally are also very important because they demonstrate the vendor's ability to identify and satisfy the needs of customers around the world. Thus, we give customer experience a high weighting.

- **Operations —** Operational competence is a very important criterion. It considers a vendor's ability to meet its goals, obligations and commitments on an ongoing basis. There are marked differences in capabilities across vendors, as confirmed by customer references and Gartner client interactions. Vendor support, maintenance, business and technical consulting, and field operations are important parts of the WMS selection process. Factors include the quality of the organizational structure, as well as the skills, experience, programs, systems and other vehicles that enable an organization to operate effectively and efficiently on an ongoing basis. As projects become more complex, a vendor's ability to not only sell and implement a solution but also help customers fully exploit their WMS investments is critical to long-term success. Finally, a vendor's management structure, experience, skill and expertise play a significant role in its ability to harmonize its vision, strategy, tactics and actions. Therefore, we give operations a high weighting.

Table 1: Ability to Execute Evaluation Criteria

Evaluation Criteria	Weighting
Product or Service	High
Overall Viability	High
Sales Execution/Pricing	High
Market Responsiveness/Record	Medium
Marketing Execution	Medium
Customer Experience	High
Operations	High

Source: Gartner (May 2024)

Completeness of Vision

Vendors' domain expertise, technology vision and vision for the WMS of the future rank highly. We consider vendors' knowledge and vision for warehousing and, more broadly, logistics management both locally and internationally. We also consider a vendor's vision for warehouse process innovation, not simply process execution, which means demonstrating a compelling vision for how warehousing, business and logistics trends will influence warehousing and WMSs in the future. For example, as concepts like multichannel commerce have rapidly emerged in retailing, some vendors have responded quickly to these needs, have established a leadership position and are poised to exploit these concepts in other industries. While the emergence of newer deployment models like cloud and multitenant SaaS had previously differentiated WMS vendors, the impact of deployment models has diminished as the majority of WMS vendors now offer some form of cloud strategy. However, there remains a continuing debate among vendors and buyers on whether multitenant SaaS is demonstrably better than dedicated cloud. We consider these factors in our evaluation.

A WMS is one important part of integrated logistics, or what Gartner refers to as SCE convergence. Consequently, vendors are also evaluated on how well they understand this emerging concept and what strategies they have to move in this direction. While having a WMS vision is notable, a vendor's vision for broader SCE convergence is critical to moving farther to the right side of the Magic Quadrant, and this differentiates offerings. Because SCE convergence is an emerging best practice, we also consider vendor strategies to support this concept beyond basic data or transaction integration.

The criteria used for evaluating a vendor's Completeness of Vision include:

- **Market Understanding —** Although the WMS market is mature, we see an accelerated need for innovation in areas such as user experience, adaptability, decision support, material handling automation and robotics integration, and work planning and optimization. The dramatic changes embodied in ongoing market shifts will require considerable nimbleness and competency, as well as investment on the part of vendors. Therefore, in this Magic Quadrant, we place strong emphasis on a vendor's understanding of these market dynamics and its product strategies to support these needs. Exhibiting and articulating a vision for where WMSs will be in the future and exhibiting an innovative culture remain distinguishing characteristics among vendors. A demonstrated knowledge, proficiency and differentiated vision of the current and future warehouse management marketplace are critical considerations. Market understanding assesses the WMS vendor's ability to understand WMS buyers' wants and needs, and to translate them into products and services. Vendors that show the highest degree of vision listen to, anticipate and understand buyers' wants and needs, and can augment customer insight with their own WMS visions. Vendors that simply respond to current market requirements without anticipating future requirements will likely be unsuccessful over the long term. Consequently, we give market understanding a high weighting.

- **Marketing Strategy and Sales Strategy —** Until recently, marketing strategy and sales strategy have had modest impacts on the WMS market, which has historically been dominated by specialist vendors focused on warehousing and logistics. Today, marketing and sales strategy are becoming more important, particularly as megavendors become stronger WMS providers. Furthermore, as cloud becomes the dominant WMS delivery model, a vendor's approach to promoting its offering becomes more important. We consider vendors' strategies for establishing their WMS brand and how they develop strategies and tactics for local and international expansion. Therefore, we give marketing strategy and sales strategy each a medium weighting.

- **Offering (Product) Strategy —** Offering (product) strategy is critical and has a high weighting. It refers to a WMS provider's approach to product marketing, R&D and solution delivery that emphasizes differentiation. We consider strategies for functionality, usability, technology, adaptability, delivery methodologies and feature sets as they map to current and future WMS requirements, market trends and technology evolutions. In addition, we consider vendors' SCE convergence strategies for supporting end-to-end processes that span functional areas, such as order management, warehouse management, transportation, trade compliance, manufacturing and materials safety. A vendor's understanding of these market changes and its product strategies for successfully navigating these changes significantly influence its Completeness of Vision. All qualifying solutions in this Magic Quadrant handle basic core WMS capabilities.

- Another distinguishing characteristic of vendors moving to the right in the Magic Quadrant will be the breadth of their WMS — what Gartner refers to as an "extended" WMS. We place importance on the vendor's current and planned support for WMS "systems of innovation" capabilities. These include value-added services and light manufacturing, labor management, slotting, yard management, dock scheduling automation interfaces, resource/work planning, SCE convergence and enhanced user experience. Finally, the technical architecture of the WMS has become a notable distinguishing characteristic of various offerings. We observe significant differences in strategies, visions and product roadmaps related to architectural issues, such as user experience, adaptability, flexibility, composability and exploitation of advanced capabilities like analytics and AI.

- **Business Model —** The soundness and logic of a vendor's underlying business propositions are key indicators of a vendor's sustainability and how its overall strategies and tactics might affect its ongoing success in the WMS space. For example, one vendor might focus on organic innovation, while another might concentrate on buying innovation through mergers and acquisitions. While the former might have a longer gestation period, it has potential product and technical advantages. The latter might allow a vendor to get to market faster but cause longer-term product issues. This year, continued emphasis has been placed on a vendor's business model, processes and the maturity of its cloud offering. Therefore, we give business model a medium weighting.

- **Vertical/Industry Strategy —** Vertical/industry strategy is evaluated, but not considered critical, so we give it a low weighting. Because of the maturity of the WMS market, many vendors have customers across multiple industries and have added the necessary functionality to support the needs of various industries. However, there are some limited instances where vertical/industry strategies can be more important in certain areas where the need of the specific industry is unique and requires specialized capabilities in or around the WMS. For example, WMSs serving healthcare provider networks need strong integration with patient care. We consider not only product functionality but also how vendors address industry verticals from a product management and go-to-market perspective.

- **Innovation —** Leaders and Visionaries will be the vendors on the forefront of transformation; consequently, we give innovation a high weighting. Innovation and thought leadership continue to play a strong role in this year's evaluations because innovation remains a critical differentiator. Vendors must demonstrate the ability to continuously support innovation by staying close to the most creative solutions or complicated problems in the market to drive pioneering functionality. While thought leadership is high-ranking, a track record of commercializing innovation is equally, if not more, important. WMS innovation is critically important, even though core warehousing common practices have been well-established for decades. Leading vendors continue to enhance core WMSs but invest in an extended WMS, where a greater emphasis is placed on improving warehouse performance through decision support, analytics and optimization. We also evaluate how a vendor is innovating with respect to SCE convergence, in particular WMS integration and process orchestration with yard, dock, TMS and manufacturing. Innovation is not exclusive to product functionality; go-to-market and delivery originality are also notable sources of solution differentiation.

- **Geographic Strategy —** This research is focused on the global WMS marketplace; thus, we give geographic strategy a high weighting. Geographic strategy looks at technology providers' strategies for directing resources, skills and offerings to meet the specific needs of global logistics in terms of a multigeography WMS (including multilanguage and multicurrency). We also assess vendors' abilities to support global warehousing requirements beyond core WMS functionality, as well as how they plan to address the varying needs of WMS users around the world. Geographic strategy is increasingly important for maintaining a strong presence throughout the global market. Several vendors did not qualify for this research because they lacked the necessary global presence, but many of these remain strong offerings in their respective regions.

Table 2: Completeness of Vision Evaluation Criteria

Evaluation Criteria	*Weighting*
Market Understanding	High
Marketing Strategy	Medium
Sales Strategy	Medium
Offering (Product) Strategy	High
Business Model	Medium
Vertical/Industry Strategy	Low
Innovation	High
Geographic Strategy	High

Evaluation Criteria	***Weighting***

Source: Gartner (May 2024)

Quadrant Descriptions

Leaders

Leaders combine the uppermost characteristics of vision and thought leadership with a strong, consistent Ability to Execute. Leaders in the WMS market are present in a high percentage of new WMS deals, win a significant number of them and have a large and growing customer base. They have robust core WMSs and offer reasonable — although not necessarily leading-edge — capabilities in extended WMS areas, such as labor management, work planning and optimization, slotting, returns management, yard management and dock scheduling, and value-added services.

To be a Leader, a vendor doesn't necessarily need to have the absolute broadest or deepest WMS application. Its offerings must meet most mainstream warehousing requirements in complex warehouses without significant modifications, and a substantial number of high-quality implementations must be available to validate this. Leaders must anticipate where customer demands, markets and technology are moving, and must have strategies to support these emerging requirements ahead of actual customer demand. Leading vendors should have coherent strategies to support SCE convergence, and they must invest in innovation, have a proven track record in commercializing advancements and have processes to exploit innovation. Leaders also have robust market momentum, market penetration and market awareness, as well as strong client satisfaction — in the vendor's local markets as well as internationally. Leaders understand the importance of alliances and develop robust ecosystems of partners. Because Leaders are often well-established in leading-edge and complex user environments, they benefit from a user community that helps them remain in the forefront of emerging needs.

Key Characteristics:

Reasonably broad and deep WMS offerings

Proven success in moderate- to high-complexity warehouse environments

Participation in a high percentage of new deals

Strong new customer growth

Large customer-installed base

A strong and consistent track record

Consistent performance and vigorous new client growth and retention

Enduring visibility in the marketplace from both sales and marketing perspectives

Compelling SCE convergence strategy and capabilities

A proven ecosystem of partners

Global scale

Challengers

The critical characteristic of Challengers is that they have capable, proven and mature products, with numerous live customers and an overall solid and well-recognized position in the marketplace. They also have consistent track records of successful implementations. Challengers' offerings often run some very large and complex warehousing facilities. These solutions are in use by a large number of individual enterprises supporting multiple warehouse operations locally and worldwide. While vendors in this quadrant provide solid and established WMS solutions, there is generally one or more insufficiencies in their offerings or go-to-market strategies when compared with Leaders. These solutions are preferred by buyers that favor Ability to Execute over Completeness of Vision. Challengers can have practical visions for their solutions and, more generally, SCE. But their delivery against vision and thought leadership is typically not on par with solutions of the vendors in the Leaders quadrant.

Key Characteristics:

A capable, proven and mature WMS, with numerous live customers

A consistent track record of successful implementations

Often run some large and complex warehousing facilities

Offerings are not as broad or deep as WMS Leaders

Lacking or trailing in having a compelling SCE convergence strategy and capabilities

Generally lacking the overall thought leadership, innovation or compelling visions of next-generation WMSs

Visionaries

To be a Visionary, a vendor must have a coherent, compelling and innovative strategy that seeks to deliver a differentiated, robust and vibrant offering to the market. Visionaries are often thought leaders in one or more WMS solution dimensions (for example, functionality, services, vertical industry, or go-to-market or deployment strategies) and they tend to be on the leading edge of some emerging concepts. However, these offerings have some deficiencies in their Ability to Execute in areas such as viability, growth, global scale or operations. At a minimum, vendors in the Visionaries quadrant fall into one of two broad categories. They can be established WMS vendors that have yet to mature into leading positions in the market, or they can be innovative specialist vendors with unique and potentially disruptive views of where the market is going. These vendors can exhibit innovation in some areas but lack it in other areas.

Key Characteristics:

A coherent, compelling and innovative strategy that seeks to deliver a robust and vibrant offering to the market

A thought leader in one or more WMS solution dimension that tends to be on the leading edge of emerging concepts

A yet undemonstrated ability to handle a broad range of complex user requirements

Execution gaps (e.g., viability, growth, global scale or operations)

Lacking or trailing in having a compelling SCE convergence strategy and capabilities

Differentiated innovation in WMS products, services, vertical, or go-to-market or deployment strategies

Niche Players

Although there might be an assumption that vendors in the other quadrants are better choices for new WMS buyers, in certain circumstances Niche Players are just as good or better choices for prospective users. This is because they might focus on a geographic or vertical component of the market that is meaningful to particular users. However, this focus alone is not a compelling enough differentiator for a vendor to occupy a leadership position. It would also have to perform well in other dimensions. Although some vendors in the Niche Players quadrant have solid WMS solutions for a specific industry or geography, their solutions are not as broad as those in other quadrants. They likely won’t evolve enough to comprehensively support SCE convergence for the foreseeable future.

Key Characteristics:

Might focus primarily on a geography or vertical market

Not a generally differentiated offering, although may have some unique capabilities

May not be well-established and visible in the broader WMS market but have growing visibility in their target market

A narrow focus on specific WMS features (i.e., not as broad or deep a WMS)

Market momentum and product or company viability may be in question

Lacking in SCE convergence

Context

The overall WMS market breaks down into five broad types of vendors, the first four of which are covered in this Magic Quadrant:

- **Application megavendors —** These vendors offer broad portfolios of applications across many application categories (e.g., back-office financials, human capital management [HCM], customer relationship management [CRM], customer order management, manufacturing, enterprise resource planning [ERP] and supply chain management [SCM]). While these vendors might offer a variety of supply chain management (SCM) solutions, they do not necessarily offer an integrated platform. Infor, Microsoft, Oracle and SAP are considered megavendors with WMS offerings.

- **SCM suite vendors —** These vendors offer a holistic WMS, plus a portfolio of two or more applications focused primarily on SCM. This can include aspects of logistics (e.g., warehousing, transportation and global trade), supply chain planning (SCP), customer service (e.g., order management and omnichannel management), manufacturing or sourcing and procurement, but not other functional areas such as financials, CRM or HCM. While these vendors might offer a variety of SCM solutions, they do not necessarily offer an integrated platform (although some do). Vendors in this category include Blue Yonder, Körber and Manhattan Associates.

- **Specialist WMS suite vendors —** These are independent software vendors (ISVs) that focus primarily, but not necessarily exclusively, on holistic WMS suites. In addition to WMSs, they might offer complementary capabilities, but these remain a modest percentage of their business. Vendors in this category include Ehrhardt Partner Group (EPG), Generix Group, Made4net, Mantis, Reply, Softeon, Synergy Logistics, Tecsys and Vinculum.

- **Material handling equipment/automation vendors —** Most MHE vendors primarily focus on providing the electromechanical aspects of large-scale, automated warehouses. However, many of these vendors also offer some WMS capabilities as part of their portfolio of products. We only cover MHE firms as part of this research if they can demonstrate that they routinely sell their packaged WMS application completely independently from their MHE at a substantial level. This is because these firms do not typically offer their WMSs to the market independent of their MHE solutions. Vendors in this category included in this Magic Quadrant are Dematic, Mecalux Software Solutions and SSI SCHAEFER IT Solutions.

Independent WMS component vendors — Not covered in this Magic Quadrant, these vendors are specialized ISVs that focus exclusively on offering stand-alone components that can be used to supplement a WMS; they do not offer a full WMS. Examples of these components include workforce/labor management, slotting optimization, multicarrier parcel management, yard management, dock/appointment scheduling, warehouse control systems (WCSs), warehouse execution systems (WESs) and other specialized add-on solutions. For vendors in this category, see **Warehousing and Fulfillment Vendor Guide**, **Market Guide for Yard Management** and **Market Guide for Multicarrier Parcel Management Solutions**.

WMS Market Considerations

All solutions in this Magic Quadrant support basic core WMS capabilities. Many also support various levels of extended WMSs. Core WMS capabilities are the basic functions of receiving, put-away, storing, counting and picking, packing and shipping goods. Extended WMS capabilities are value-added capabilities that supplement core functions, such as labor management, slotting, yard management and dock scheduling (see **Apply an Architectural Framework to Stratifying Warehouse Management Systems**).

Despite being a very mature market, recent macro factors and disruptions have spurred innovation. However, while economic and business conditions are challenging for some vendors and regions, the overall market is approaching $3 billion in 2024. It also has a forecast five-year CAGR that increased from high single digits last year to double-digit growth (in the teens). WMS offerings continue to differ in areas such as usability, adaptability, decision support, scalability in both up and down market, use of emerging technologies and life cycle costs. Furthermore, customers increasingly favor suites that can support end-to-end supply chain and logistics process orchestration. Gartner refers to these areas as supply chain convergence and supply chain execution convergence (related to convergence of operational activities).

The focus on breadth and depth of WMS offerings remains valid for the most sophisticated operations, while other factors such as simplicity, usability and cost of ownership are more important in less-complex environments. However, we continue to see a divergence in the WMS market between the high-performance, complex and sophisticated end of the market and the mass market, where functionality needs only to be “good enough.” This is not because companies choose to sacrifice functionality. It’s because globally, the preponderance of warehouse operations are Level 3 or below in Gartner’s warehouse complexity model. Gartner defines Level 1 as the most basic warehouse operation and Levels 4 and 5 being the most complex and automated. Warehouses at Level 3 and below do not require, nor would they normally use, the most advanced functionality. See **Tool: Stratify Your Warehouse Operations to Determine the Right-Fit WMS and Improvement Strategy** for more insight on level-setting warehouse operations.

This divergence highlights that there is a very clear market for high-end WMS solutions where feature/function and performance are critical, and cost is less of an issue. It makes for a healthy, albeit smaller, market for high-end, functionally advanced WMS solutions aimed at complex and sophisticated Level 4 and Level 5 operations. Conversely, there is another market where other factors dominate, such as ease of use, reliability, service and support, “good enough” features and lower cost of ownership. This is a very large WMS market for what Gartner’s stratification model would call Level 2 and Level 3 warehouse environments. Here, companies could be served well with any good WMS, and they could be satisfied with a megavendor-provided WMS or a less functionally robust ISV WMS offering.

Although functionality remains the No. 1 user evaluation criterion, there’s near-functional parity for basic core WMS capabilities across WMS providers. Given the mature state of the WMS marketplace, among other factors, a combination of the following vendor and product factors affects the positioning of vendors in this year’s Magic Quadrant:

- The vendor’s market understanding and its vision for next-generation WMSs and supply chain execution.

- The vendor’s proven track record of commercializing, delivering and deploying innovations to the market.
- Investments to address total cost of ownership and customer time to value.
- The WMS’s technical architecture to support composability, adaptability and extensibility.
- The vendor’s cloud strategy, capabilities and technical architecture and deployment model options (e.g., dedicated or multitenant cloud SaaS).
- The long-term viability of the vendor and product, given the long life span of WMSs.
- Current and projected growth of both revenue and total number of clients.
- Vendor market awareness, name recognition and reputation.
- Product or vendor differentiation.
- Compelling or differentiated business model.
- Ability to translate business goals and objectives into specific WMS functional requirements.
- The vendor’s ability to sell, implement, service and support global deployments.
- The vendor’s ability to deliver value through service, support, consulting and training.
- The vendor’s openness to, and support of, an ecosystem of partners.
- Tools and technologies embedded in the WMS to facilitate and streamline implementations.
- Customer experience (from customer references and Gartner customer interactions).
- SCE convergence strategy (a seamlessly integrated SCE orchestration platform).

Gartner continues to find that WMS buyers place particular emphasis on WMS product breadth and depth, vendor expertise, and customer service and support. Technical architecture as well as vendor and product viability, TCO and time to value, have become increasingly important criteria, almost on par with the importance of functionality. As basic core WMS has approached parity in the market, implementation tools and methodologies, as well as integration with other applications, have become more important considerations in customer evaluations.

Cloud has become the preferred WMS deployment option, with more than 80% of new customers preferring cloud if the economics are reasonable. But with a large existing installed base for on-premises WMS, a little over 30% of completed deployments are cloud, with around 11% multitenant cloud. In low- to moderate-complexity warehouses, subscription pricing models for cloud/SaaS WMSs reduce short-term costs, which is fueling increased interest in this market. However, for larger and more complex environments, WMS cloud pricing is confusing to buyers since a de facto standard pricing model has yet to emerge, and long-term (10- to 15-year) costs seem unreasonably high to many buyers. Furthermore, while named users was the dominant pricing model for on-premises WMS, more recently, pricing based on order lines and other factors are emerging as an option. This trend exacerbates buyer confusion when comparing offerings with notably different pricing methodologies, and sometimes, a variety of pricing metrics to take into account.

Customers now focus more attention on the value-adding capabilities that surround core WMS capabilities, due to the compelling need to address labor shortages and rising costs. Examples include workforce management, task interleaving, slotting, yard management, dock scheduling and performance management. These have now become common requirements in all but the most basic WMS deals. Furthermore, labor shortages are motivating companies to consider various forms of automation — from intralogistics smart robotics to complex conventional material handling automation systems that are often found in Level 5 warehouse operations. Consequently, buyers are increasingly interested in how various WMS offerings will support automation both now and in the future. Additionally, labor shortages are compelling organizations to look for support in getting most of the workers they do have with tools to support better usability, employee engagement and gamification.

Technical architecture, integration capabilities and adaptability are now notable considerations in WMS evaluations. Finally, companies have expanded their numbers of distribution points and have evolved to more distributed networks. To support diverse operations, organizations have warehouse operations that span from very simple Level 1 warehouses to highly complex and automated Level 5 and everything in between. While functional depth and breadth are important for the complex operations, simplicity and ease of use are much more compelling needs for Level 1 and Level 2 operations.

Market Overview

There are two new entrants (Dematic and Deposco) to this year's Magic Quadrant, due to the vendors now meeting the inclusion criteria, improved capabilities and growing Gartner client interest in their offerings. No vendors were dropped from last year's Magic Quadrant, despite a challenging market for some and tighter global, revenue, customer and product inclusion criteria to this Magic Quadrant. There has also been some movement within and across quadrants despite the maturity of the market. Additionally, the trend of acquisitions, investments and restructures within the WMS market seen in the previous two years continued into 2023. Ingka Group acquired Made4net, Generix acquired DDS, Hardis Group acquired Sislog, SSI Schaefer completed its acquisition of DS Automotion, and Softeon acquired GetusROI, bringing opportunities and risks for vendors and their clients and prospects.

Vendor and product evaluations for this Magic Quadrant have become tougher (in areas such as customer numbers) and harder to achieve for some vendors impacted by continuing disruption and significant macroeconomic and geopolitical impacts on customers and resources. Some have experienced slowed growth, others have benefited from renewed focus on areas such as e-commerce, support for automation and intralogistics, smart robotics, advanced analytics and various use cases for AI/ML and computer vision. Many of the vendors in this Magic Quadrant (including megavendors) are building out new use cases for generative AI (GenAI), initially targeting back-office support for areas such as training and implementation materials but we expect additional focus on more use cases over the next 12 months. We are also starting to see client concern over cybersecurity edging into warehouse system considerations.

Both vendors and Gartner end-user clients have reported continued constraints on WMS implementation resources, driving organizations to look for other forms of support and innovation in deployment approach. There has been growth in the need for adaptable solutions, cloud deployments, composability and support for automation and robotics, given the continued impact of the disruptive events of the last few years. Flexibility in commercial terms is becoming more compelling to customers as some vendors are offering seasonal software and hardware subscriptions which is appealing to companies with significant seasonal fluctuations. We are also starting to see the availability and exploitation of application ecosystems moving beyond midmarket WMS into enterprise.

Requirements for international sales and revenue again impacted certain regional WMS vendors that have good offerings but lacked the appropriate level of international revenue to qualify. Gartner started the process for this research by considering over 80 WMS providers, but only the 20 vendors featured provided the evidence that they met the documented inclusion criteria. The WMS market is a long-tail market with seven vendors dominating in terms of number of customers and WMS revenue. Yet there are many other WMS vendors with viable offerings gaining ground, including those that did qualify for this research and others that did not.

Specialist WMS vendors continue to dominate the most sophisticated and complex warehouse environments due to the breadth and depth of their current applications, their thought leadership and their position as vendors that others look to emulate. They have moved beyond basic WMSs, expanding their portfolios vertically and horizontally. In this Magic Quadrant, Blue Yonder, Körber and Manhattan Associates remain in the Leaders quadrant largely due to their experience serving these large, complex users with functionally broad and deep WMSs. These vendors tend to differentiate themselves most when extended WMS capabilities are a greater aspect of the functional evaluation, because their systems are broader and deeper in these areas. Their solutions have been implemented in some of the most complex warehouse environments. Moreover, these vendors have extensive experience in SCE, as well as compelling visions for how WMSs and, more broadly, SCE will evolve over the next five years.

Megavendor WMSs (i.e., Infor, Microsoft, Oracle and SAP) continue to evolve, adding depth to their core WMS capabilities as well as some extended WMS capabilities with some of them working to improve facets such as usability. Although these solutions have yet to match the overall depth and breadth of Blue Yonder and Manhattan Associates, they have become viable alternatives for existing customers of the megavendor that are looking for “good enough” WMS capabilities. Additionally, most of the mega vendors are demonstrating benefits by offering access to their group’s depth of support for technologies such as advanced analytics and AI/ML. We have yet to see other large vendor types such as MHE vendors exploiting the same depth and breadth of support leveraged to their WMS customers or prospects. Infor, Oracle and SAP remain in the Leaders quadrant this year due to several factors. These include the relative consistency of their market growth, ability to serve global customers, innovation in areas surrounding WMSs, compelling SCE convergence strategies and overall market acceptance. These megavendors have momentum internationally because they are organizationally well-positioned globally. Furthermore, the majority of companies in emerging geographies lack the process maturity or WMS sophistication to necessitate adoption of the most functionally robust solutions, making the WMS of their suite provider acceptable. This does not mean that other vendors don't have advantages worth consideration by prospective customers. For example, customer intimacy, time to value, depth and breadth of functionality, geographical scope or vertical industry expertise could all favor other vendors in certain circumstances.

The **Visionaries** quadrant is populated with vendors solidifying their positions as thought leaders while still developing their Ability to Execute. They exhibit one or more of the following characteristics: innovative and differentiated solutions, a compelling and unique position in a specific vertical market, or distinctive go-to-market strategies. Vendors in this quadrant, while innovative and offering intriguing solutions, have yet to solidify their long-term viability and global market positions. Softeon, although small, is an innovator, leveraging a strong service-oriented architecture (SOA) platform to challenge the traditional WMS vendors. It is extending WMS concepts into unique markets, such as digital product logistics. Reply maintains its position in this quadrant, mainly due to its innovative approach to WMS architecture, supporting technologies and cloud-first strategy. Reply is also one of the vendors most aggressively pursuing various use cases for AI, ML and advanced optimization.

Several vendors are positioned in the **Niche Players** quadrant. Niche Players' solutions are often functionally sufficient or, in some cases, excellent choices for many companies addressing a variety of needs, some of which are outside pure WMS capabilities. This would include Deposco and Vinculum's ease of integration to marketplaces. However, these offerings might lack the global scale, WMS depth or breadth, R&D investment, number of clients, customer references or business viability of the leading vendors in the market. Dematic is notable for its gradual evolution from merely being an MHE vendor with some software solutions, to a more serious contender with a strategy to rearchitect, align and consolidate its various WMS, WCS and optimization offerings for customers. Mecalux is notable for its blend of support for the midmarket in both manual and automated environments. Synergy Logistics is notable for its support for rapid deployments and has been expanding its remote deployment tools and robotics support capabilities. Made4net, following its acquisition by Ingka Group, continues to operate independently and retains significant CAGR for revenue and customers. Mantis is notable for its flexible self-serve capabilities, and is now exploiting its 2022 acquisition by ecovium, with net new WMS customers and a few ecovium replacements in territories it had no presence in previously. Generix Group is notable for its model-driven architecture, which enables more user adaptability of the WMS during and after implementation. It restructured in 2022, moving to full private ownership and is no longer listed on the Paris Stock Exchange and in 2023 acquired DDS, a provider of TMS solutions.

Vendors that make it into the **Challengers** quadrant are typically mature, functionally solid and proven, with strong track records of customer adoption and successful deployments but lack the characteristics of Visionaries. Their solutions can scale to support Level 3 or higher warehouse operations, and they have strong core WMS capabilities and some extended WMS capabilities. Although offerings in the Challengers quadrant are normally functionally robust, the vendor or specific solution is not at the forefront of innovation. The vendor is not typically a WMS market or thought leader, or the early provider of innovation. These vendors might have one (or more than one) strong product, but their overall market position has not yet advanced far enough to move into the Leaders quadrant. EPG and Tecsys (new entrants to this quadrant in 2022) remain in the Challengers quadrant this year, as does SSI SCHAEFER IT Solutions. Microsoft, a new entrant to the WMS Magic Quadrant in 2023 (due to reaching megavendor inclusion criteria) maintains a position in this quadrant with continued suite-based customer growth and focus on technologies supporting WMS. SSI SCHAEFER IT Solutions is noteworthy for the demand for its solution and support for automation. EPG's growth, vision for extended capabilities, such as workforce management and support for automation, has further improved its position in this quadrant. Tecsys' continued revenue growth and adaptability have solidified its position in the Challengers quadrant. Tecsys is also notable for its healthcare capabilities and collaborative partnerships in this industry. Microsoft's position is driven largely by its gathering customer momentum in more complex environments following its purchase and additional development of greater WMS functional capabilities and its vision for supporting technologies. Gartner has also observed greater demand for the Microsoft Dynamics 365 Supply Chain Management WMS solution globally, but with a not yet realized vision to move toward independent deployments.

Vendors continue to innovate with continuing focus on enhancing their technical architectures, driven by customer demand. Some like Reply and Manhattan Associates already have rewritten their WMS using a microservices architecture that allows continuous upgrades and extensibility in a multitenant cloud environment, giving greater potential for composability and exploitation of other supporting technologies. Others remain on a longer path toward that goal. The majority of vendors are responding to the market and providing further support for automation and robotics. An example is Körber, with its development toward a unified control system (UCS) and commercial proposition to support robotics as a service (RaaS), and Synergy's recently developed robotics support platform.

Evidence

Gartner used multiple data sources to help analyze and assess each vendor in this Magic Quadrant. These sources included:

- **Vendor presentations and demonstrations to the Gartner analyst team —** Specifically, to support this research, each vendor is allotted time in a live environment to present information about its company and solutions. Each vendor is allotted the same amount of time for this research, but Gartner also conducts interactions with vendors and their customers throughout the year as part of normal and ongoing relationships with user and vendor clients. In addition to the live presentation and demonstrations, each vendor provided a prerecorded, 60- to 75-minute demonstration of its core WMS, basic configuration, technical architecture, implementation accelerators and extensibility tools per offering.

- **Research and data collection —** Each vendor is also asked to respond to and fill out a survey that investigates, in more detail, factual information about its company and WMS offerings.

This includes current operations, solution sets, strategic directions, technology vision, and market and industry focus. Also, as part of this exercise, Gartner reviews customer references on Gartner Peer Insights submitted in the last 12 months.
- **Customer inquiry —** Throughout the year, Gartner takes more than 1,700 client inquiries on various topics related to WMS and WMS vendors. This information supplements, not replaces, the core information collected during this research.

Evaluation Criteria Definitions

Ability to Execute

Product/Service: Core goods and services offered by the vendor for the defined market. This includes current product/service capabilities, quality, feature sets, skills and so on, whether offered natively or through OEM agreements/partnerships as defined in the market definition and detailed in the subcriteria.

Overall Viability: Viability includes an assessment of the overall organization's financial health, the financial and practical success of the business unit, and the likelihood that the individual business unit will continue investing in the product, will continue offering the product and will advance the state of the art within the organization's portfolio of products.

Sales Execution/Pricing: The vendor's capabilities in all presales activities and the structure that supports them. This includes deal management, pricing and negotiation, presales support, and the overall effectiveness of the sales channel.

Market Responsiveness/Record: Ability to respond, change direction, be flexible and achieve competitive success as opportunities develop, competitors act, customer needs evolve and market dynamics change. This criterion also considers the vendor's history of responsiveness.

Marketing Execution: The clarity, quality, creativity and efficacy of programs designed to deliver the organization's message to influence the market, promote the brand and business, increase awareness of the products, and establish a positive identification with the product/brand and organization in the minds of buyers. This "mind share" can be driven by a combination of publicity, promotional initiatives, thought leadership, word of mouth and sales activities.

Customer Experience: Relationships, products and services/programs that enable clients to be successful with the products evaluated. Specifically, this includes the ways customers receive technical support or account support. This can also include ancillary tools, customer support programs (and the quality thereof), availability of user groups, service-level agreements and so on.

Operations: The ability of the organization to meet its goals and commitments. Factors include the quality of the organizational structure, including skills, experiences, programs, systems and other vehicles that enable the organization to operate effectively and efficiently on an ongoing basis.

Completeness of Vision

Market Understanding: Ability of the vendor to understand buyers' wants and needs and to translate those into products and services. Vendors that show the highest degree of vision listen to and understand buyers' wants and needs, and can shape or enhance those with their added vision.

Marketing Strategy: A clear, differentiated set of messages consistently communicated throughout the organization and externalized through the website, advertising, customer programs and positioning statements.

Sales Strategy: The strategy for selling products that uses the appropriate network of direct and indirect sales, marketing, service, and communication affiliates that extend the scope and depth of market reach, skills, expertise, technologies, services and the customer base.

Offering (Product) Strategy: The vendor's approach to product development and delivery that emphasizes differentiation, functionality, methodology and feature sets as they map to current and future requirements.

Business Model: The soundness and logic of the vendor's underlying business proposition.

Vertical/Industry Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of individual market segments, including vertical markets.

Innovation: Direct, related, complementary and synergistic layouts of resources, expertise or capital for investment, consolidation, defensive or pre-emptive purposes.

Geographic Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of geographies outside the "home" or native geography, either directly or through partners, channels and subsidiaries as appropriate for that geography and market.