Midsize enterprises continue to place a premium on ease of use, simplicity, time to value and lower cost of ownership when selecting new or replacement warehouse management systems. Supply chain technology leaders in midsize enterprises can use this research to understand the MSE-focused WMS market.

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Magic Quadrant for Warehouse Management Systems

**Market Differentiators**

MSE-focused WMSs primarily manage the core warehouse management operations, tasks and activities of less complex warehouse or distribution operations. These solutions are well-suited for, but not limited to, midsize enterprises (MSEs) with $50 million to $1 billion in annual revenue. These applications are normally aimed at Level 2 and Level 3 warehouses but can sometimes also support certain Level 4 warehouse capabilities like basic labor or yard management. These can sometimes also support slightly more complex Level 1 environments.

However, Level 1 warehouses normally favor even more simplified inventory management capabilities in lieu of full-function WMSs whether focused on MSEs or not.
Normally, MSE-focused WMSs are intentionally less functionally broad and deep than comprehensive WMS suites because MSE warehouse operations usually do not need, nor would they use, advanced extended WMS functionality like slotting optimization or labor and yard management. MSE WMSs adequately cover basic core WMS application functionality, including receiving, put-away, inventory management, cycle counting, picking, replenishment, packing and shipping for Level 2 and Level 3 warehouse operations. These systems normally support some use of radio frequency (RF) mobile technology in conjunction with bar codes.

Vendors that target MSE warehouse operations focus more attention on providing low total cost of ownership (TCO), rapid and easier implementations, and reduced complexity of maintenance and support. They offer basic core WMS functionality, providing the most commonly used features and, in many cases, adaptable technical architectures that minimize, if not eliminate, customization. MSE WMS vendors are also more likely to offer multitenant cloud platforms that help deliver the above benefits.

The warehouse management systems (WMSs) market is bifurcated with some solutions best-suited to large, complex and sophisticated warehouse operations and other solutions that might be better suited to midsize enterprises (MSEs). Breadth and depth of functionality dominate at the complex and sophisticated high end of the market while MSEs favor good-enough functionality that is easy to use and implement and that has a lower cost of ownership and operation. Factors like ease of use (usability), simplicity, time to value and cost of ownership overshadow the need for the most advanced functionality. This research focuses on WMS applications well-suited to the needs of MSEs.

Gartner intentionally chooses to not use the terminology Tier 1, Tier 2 or Tier N warehouses. One issue we have is that tiering is too often defined principally based on the size of the organization and not the operational conditions of a warehouse. Gartner’s five-level model defines the operational characteristics from very simple Level 1 warehouses to very complex and highly automated Level 5 facilities (see Apply an Architectural Framework to Stratifying Warehouse Management Systems). Larger enterprises can run simple Level 2 warehouses, while smaller companies can sometimes require Level 4 or even Level 5 warehouse systems. For example, a midsize electrical parts distributor (in the $250 million to $500 million revenue range) might have quite complex Level 4 warehouse operations because of the customers it serves and the numbers of products it carries.
Although these solutions specifically target MSEs, many of the solutions highlighted in this research are also used in the less complex warehouse facilities of large corporations as well. Furthermore, many very large organizations have warehouses of all strata where their largest, most complex operations might fit the definition, but their other operations are more difficult to categorize, operating more like MSEs. For example, one Gartner customer has more than 1,000 global warehouses of which three-quarters are Level 1 operations, while the remaining are spread across the other four strata of warehouse operations. They have a hybrid deployment model where they use certain systems for their large complex and sophisticated warehouses and a different set of solutions for their simple warehouses. This is especially true of satellite operations, where a comprehensive Level 3 or Level 4 WMS solution is running a company’s main warehouse operations but is found to be too complex and expensive for its Level 2 warehouse operations. This is where an MSE-focused WMS could be the best alternative.

MSE WMSs are also increasingly well-suited to warehouse operations in nontraditional environments, such as universities, healthcare organizations or government agencies. In these environments, operating a warehouse is not the prime focus of the business, and these tend to be fairly simplistic operations. It might be a warehouse that supports food and supplies for a school system’s cafeteria, or a warehouse for a university where it centralizes receipt, storage and issuance of supplies.

While some vendors focused on the high end of the market claim they can simply turn off advanced features, these systems remain complex and more expensive to implement, use, support and maintain. However, these might be appropriate if an organization already has some advanced warehouse operations using a robust WMS and wishes to minimize the number of WMSs it supports. In this case, using the more robust system in the less demanding locations makes sense, whereas the opposite would not be true.

The Magic Quadrant for Warehouse Management Systems evaluates WMS suite providers that cover Level 2 through Level 5 warehouse operations, with particular emphasis on more complex Level 4 and Level 5 operations. This research focuses on MSEs running primarily Level 2 and low Level 3 warehouse operations. Not covered explicitly by either piece of research are stand-alone Level 1 operations that require only WMS-like capabilities (e.g., simple receiving, user-managed storage and very simple demand fulfillment, such as picking). Some of the vendors covered in both reports have specific capabilities to address simple Level 1 environments, such as store inventory. In addition, vendors like DSI, RFgen Software and RF-SMART have mobile application platforms that can be used to support Level 1 facilities.
Megasuite (e.g., ERP) vendors also are not covered in this research, but they are often viable options for MSE WMS operations. Companies with a strong commitment to a megasuite vendor (like Epicor Software, Infor, Microsoft, Oracle, Sage and SAP) should shortlist their megasuite vendor’s offering, but also consider other MSE-focused solutions. Where functionality is often the distinguishing issue at the high end, other factors (like cost of ownership, simplicity and ease of use) are more important for MSEs. Also, as mentioned above, MSEs gravitate to cloud-based WMSs, and MSE WMS vendors are often more committed to and mature in cloud than higher-end WMS vendors are.

**Considerations for Technology and Service Selection**

Gartner defines a WMS as “a software application that helps manage the operations of a warehouse or distribution center.” Basic WMS applications offer the core WMS capabilities of receiving, put-away, storing, counting and picking, packing, and shipping.

These systems incorporate mobile devices in conjunction with bar codes and, possibly, RFID to form the transactional foundation of a WMS. This enables efficiencies of directed work activity and the delivery of accurate information in near real time.

Of less importance in this research, given the focus on MSEs, are what we refer to as “extended WMS capabilities,” which are advanced functionalities more suited to complex warehouse operations.

Key considerations supply chain technology leaders should weigh when evaluating and selecting MSE-focused WMS technology and services include:

- WMS vendors with an explicit and demonstrable focus on MSEs
- Vendor WMS domain expertise, especially experience and track record in MSEs
- Deployment model, increasingly cloud
- Intuitive and easy-to-learn user experience
- Simplicity (use, setup and maintenance)
- Total cost of ownership
- Time to value/rapid implementation
- Implementation tools embedded in the WMS that help streamline implementation
- Service partner ecosystem
Notable Vendors

Vendors included in this Magic Quadrant Perspective have customers that are successfully using their products and services. Selections are based on analyst opinion and references that validate IT provider claims; however, this is not an exhaustive list or analysis of vendors in this market. Use this perspective on 13 solution offerings as a resource for evaluations, but explore the market further to gauge the ability of each vendor to address your unique business problems and technical concerns. Consider this research as part of your due diligence and in conjunction with discussions with Gartner analysts and other resources.

We have not included independent software vendor (ISV) WMSs that primarily target the more complex end of the WMS market, even though they could be used in MSEs. Most of these are covered in the global WMS Magic Quadrant. Certain supply chain suite providers notably Generix Group, Körber and Manhattan Associates are included because they offer specific products focused on MSE. Megasuite vendors are not included because many MSEs should automatically shortlist their megasuite vendor’s WMS offering while also considering stand-alone WMSs. Additionally, not covered herein are mobile application development platforms that often offer lightweight WMS solutions built on their platforms that could address the needs of very simple MSE warehouse operations. These vendors are strong candidates for Level 1 facilities and can sometimes scale up to Level 2, but that is not their core focus today.
Avectous

Avectous, headquartered in Santa Ana, California, launched its solution suite, which includes warehouse management, order management and channel management systems, in 2013. It has about 40 employees and around 46 companies using its solutions. While not limited to midsize enterprises, Avectous is well-suited to MSEs as an affordable alternative to larger, more recognized and expensive higher-end solutions. Avectous is a flexible cloud-based SaaS WMS offering that provides an integrated fulfillment solution that addresses inbound, intrawarehouse, outbound, multiwarehouse, distributed order management (DOM) and returns processes. It is well-suited for Level 2 and Level 3 warehouse operations but is extended with the addition of order management and channel management on its integrated Avectous Connect platform. The vendor's OMS, CMS, parcel shipping and YMS are WMS-agnostic and can be offered as stand-alone solutions. It has a rich library of API integrations including marketplaces, accounting/ERP solutions, CRMs and shipping solutions. The vendor's top industries are 3PLs as well as electronics, cosmetics, apparel and furniture. It is quick to implement and has a lower total cost of ownership when compared to many other WMS, which is why it is well-suited to MSEs. One hundred percent of the vendor's WMS customers are running on a dedicated cloud hosted on Microsoft Azure.

Davanti Warehousing

Davanti Warehousing (Davanti), headquartered in the Netherlands, is a subsidiary of NewCold (a global specialist in automated cold storage) and has been in operation since 1988. Davanti's primary focus is its WMS solutions, but it also offers consultancy services for integration. Davanti has approximately 95 customers in 15 countries, and its WMSs are in approximately 200 warehouses. Davanti has approximately $10 million in revenue, with 90% of that based on WMS licenses/subscriptions, services and support.

Davanti has two WMSs: CORAX and MLS Premium. The vendor's strategy is to actively sell and promote CORAX, its subscription-based SaaS multitenant cloud offering, which now composes more than 35% of its customer base. CORAX was developed to run on the Microsoft Azure platform, and is browser-based with no hardware investments required. It is a 100% standard WMS with regular new releases that are rolled out to all CORAX customers. CORAX was initially implemented in small and midsize businesses (SMBs). However, it is now growing to sites with 300 or more users, and moving toward a cloud enterprise solution for complex warehouses. CORAX initially supported Level 2 and Level 3. However, as the functional depth and breadth of the product continues to grow and approach parity with its legacy offering, it can scale to Level 4 and Level 5.
Deposco

Based in Alpharetta, Georgia, Deposco, in business since 2011, is a provider of cloud-based SaaS SCM solutions, with a strong MSE-focused WMS. Deposco is a growing, innovative vendor with an expanding base of WMS customers across North America, China and Europe. Deposco’s software solutions were built natively on the cloud, and all of its customers are multitenant public cloud deployments using cloud infrastructure from AWS. Deposco is uniquely extending some capabilities to the edge as necessary. An example of this is its lightweight print agent software feature that is deployed within a company network so that the agent can direct printing jobs to the appropriate network printers. Deposco’s top industries are consumer packaged goods, e-commerce and general retailers, brands, and 3PLs. It is particularly strong in MSE omnichannel commerce, and has some intriguing implementations in direct-to-consumer and multichannel environments, including those featuring automation and high volumes. It offers low TCO due to its adaptable, cloud-based architecture, and rapidly implements in three to six months. It has also developed a robust library of open APIs for connectivity to a variety of third-party applications like commerce platforms, Amazon and shipping platforms. Deposco’s core WMS capabilities are best-suited for moderately complex warehouse environments (i.e., Level 2 and Level 3, with some Level 4). They are also well-suited for e-commerce and multichannel fulfillment centers.
EVS

EVS is a specialist WMS provider that has been in business for 19 years and has over 60 customers. EVS's mobe3 WMS was built natively on the iOS platform and applies Apple's design ethos to the enterprise space. EVS's mobe3 leverages a consumer-grade user experience with a modern cloud/SaaS-based WMS, with consumer-familiar technologies for an easy-to-use/easy-to-learn/quick-to-deploy solution that is well-suited for midsize enterprises. The vendor's strongest vertical industries are food manufacturing/distribution, retail distribution, consumer goods manufacturing/distribution, and other nondurable manufacturing like chemicals, nutraceuticals and pharmaceuticals. EVS has experience and expertise in regulated industries with specialized warehousing needs, such as slotting rules based on allergens, organic, kosher, and other lot or item attributes. mobe3 is best suited to Level 2 and 3 warehouse operations but can scale up to low Level 4 operations. mobe3 is cloud-native (Microsoft Azure) and is unique because of its native iOS app on Apple devices (versus browser-based) that integrates scrolling, swiping and tapping capabilities into the UI. In addition to WMS, mobe3 also includes strong manufacturing capabilities, especially for nondurable goods such as food. EVS is the first WMS provider to embed real-time indoor locating technology into its system with mobe3 Warehouse Live, which was built based on Apple's indoor positioning technology. This adds real-time location data to the WMS activity that can be used to assign tasks, communicate via FaceTime and provide productivity stats.
Generix Group

Generix Group 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). Approximately 53% of Generix's $98 million in revenue comes from WMS and 254 of its 750 employees are focused on WMS. Generix offers two distinct WMS solutions: Generix WMS and SOLOCHAIN WMS, initially developed by its North American division (formerly Sologlobe). The vendor has about 379 customers with Generix WMSs deployed. Of Generix's WMS revenue, 79% is from consumer products manufacturers, retail and 3PL, with 3PLs representing the vendor's largest customer segment and retail a close second. SOLOCHAIN is a contemporary WMS and manufacturing execution system (MES) well-suited to MSE and is strongest today in North America. With more than 80 customers in Canada and the U.S., SOLOCHAIN is used most often in Level 2 and Level 3 warehouse operations but can scale to low Level 4 operations. SOLOCHAIN fits well in MSE environments with levels driven by its relatively solid simplicity scoring and relatively strong core WMS, strong usability, and strong adaptability. Of value to MSEs are its rich implementation tools notably its process designer, visual workflows and integrated implementation platform. These also incorporate project tracking, management and support combined with warehouse mapper, all of which play an impactful role in MSE warehouse environments. SOLOCHAIN is also notably strong in manufacturing environments because it is one of the only offerings with a seamlessly integrated WMS and MES on a common application platform.
JASCI

JASCI Software, headquartered in Elmsford, New York, offers a cloud-native SaaS suite that includes warehouse management, warehouse execution and robotics software. The vendor was formed in 2014 and is growing rapidly with about 18 new customers added in the last year. JASCI primarily works with midsize enterprises as well as global enterprise customers. It fits upper Level 2 and 3 warehouse operations of smaller midsize enterprises starting at 25 users but can scale up to Level 4 and 5 warehouse operations. For MSE-focused WMS vendors, it is well-suited to more complex customers having high transaction volumes with robotics and automation. JASCI's top vertical industries are e-commerce, wholesale distribution, consumer goods and 3PL. The vendor's offerings are powered by SmartTask, its patented microservices workflow technology that provides differentiated capabilities that let customers leverage visual workflows to adapt to changes and ease implementation. The vendor's platform is modular, multitenant, multilocation and multilingual — offered in over 80 languages. SmartTask helps optimize processes interchangeably between humans, automation and robotics. The vendor is one of the few MSE-focused WMS providers that offers WES capabilities with its ALIDA (autonomous labor intelligent dynamic assignment) technology that orchestrates work across people, robotics and material handling equipment in real time. JASCI recently acquired NextShift Robotics, which brings next-generation robotic technology to its customers. The vendor's offering is multitenant cloud running on Oracle Cloud.

Körber

Körber (formerly HighJump and inconso) is part of Körber Group. For the WMS Magic Quadrant, the emphasis remained on the former HighJump WMS offerings, but consideration was given to the impact of its acquisitions and other offerings on its strategy, vision and longer-term prospects. The Business Area Supply Chain of Körber brings together 12 supply chain technology providers (four in automation and eight in software). All were united under the Körber brand in 2020. Gartner estimates Körber has more than 1,500 customers for its four WMSs. It has no explicit or differentiated industry focus for its K.Motion Warehouse Edge offering, which is marketed more to industry size because it is designed for MSE. K.Motion Warehouse Edge is best-suited to Level 2 and low Level 3 warehouse operations due to its solid simplicity, relatively strong usability capabilities, solid core WMS, and solid but undifferentiated adaptability, analytics and implementation tools. Warehouse Edge can move to the lower section of solutions for Level 3 where its solid core WMS, but undifferentiated extended WMS, play a larger part. Körber has adopted a cloud-first model for new business, but cloud adoption varies by its various WMSs. The vendor's cloud WMS deployments are 100% dedicated cloud today, but the vendor has a vision to move toward a multitenant, microservices architecture over several years.
Made4net

Made4net, a small vendor of WMS and related SCE solutions, was founded in 2005. In December 2020, it received an investment from private equity firm Thompson Street Capital Partners. Made4net’s SCExpert Suite includes WMS plus transportation, delivery management, container management, and yard and labor management, all running on a single common technical platform. It has 687 customers with its three key industries being 3PL, retail and wholesale distribution, with significant numbers of customers in consumer products, e-commerce, food service, apparel and automotive. Made4net’s WMS historically was primarily positioned and well-suited to the MSE WMS market. It is most often used in, and has the majority of its customers in, Level 2 and 3 warehouse operations, but it can, however, scale up to Levels 4 and 5 operations. Made4net also ranks well for MSE warehouse operations, with strong core WMS (enhanced by features such as its advanced quality control and audit capabilities) and with solid simplicity, strong usability, adaptability and relatively strong analytics also playing a part. Furthermore, it rates well for MSEs because it supports a majority of capabilities required in a Level 3 environment.

Manhattan Associates

Manhattan Associates is the second largest supply chain suite provider, with 2020 company revenue of approximately $586 million. In addition to WMS, Manhattan Associates offers a broad portfolio of SCM and omnichannel commerce solutions that include transportation management, omnichannel management, supply chain planning and supplier enablement. Manhattan offers three distinct WMS offerings with Manhattan SCALE being its MSE-focused WMS. The vendor serves more than 1,600 WMS customers with a strong presence in various types of retail, apparel and footwear, consumer products, and wholesale distribution. Manhattan SCALE caters to, but is not limited to, midsize enterprises (MSEs), international geographies and the 3PL WMS markets. Manhattan primarily targets Manhattan SCALE for independent Level 2 and Level 3 warehouse environments, where usability, simplicity, implementation support tools and lower cost of ownership are important. Manhattan SCALE scores better than average compared with other offerings for Level 1 and Level 2 warehouse operations due to usability, implementation and simplicity advantages, and its availability as a SaaS multitenancy offering. However, it can also be deployed on-premises. It also offers strong core WMS and relatively strong adaptability and analytics.
Mecalux Software Solutions

Mecalux Software Solutions, part of the Mecalux group, is headquartered in Spain. It has almost 800 WMS customers with its core vertical strengths in retail, manufacturing, wholesale distribution and 3PL. Mecalux’s EasyWMS product is well-positioned to address MSEs with “medium” levels of complexity that desire low cost to implement. It primarily services midmarket businesses with automated facilities and manual warehouse operations. EasyWMS is well-suited to MSE and is most often used in Level 2 and Level 3 warehouse operations but can scale to Level 5. Mecalux offers its WMS in a variety of preconfigured versions to support the different levels of complexity. Easy WMS Pro is for Levels 1 and 2. Easy WMS Advanced is for Level 3. Easy WMS Enterprise is for Level 4, and Easy WMS Robotics (having the same features as Enterprise but incorporating Galileo, its control application) is for Level 5. It places well in the midcluster of solutions for Level 2 warehouse operations because simplicity is still a highly weighted factor at this level. Its relative but undifferentiated strengths in usability, core WMS, and solid implementation tools and analytics also supported its position. Mecalux occupies a lower position for Level 3 and Level 4 environments where a greater preponderance of strengths in a broader variety of capabilities is provided by a number of other solutions and where simplicity is of lesser importance.

Royal 4 Systems

Royal 4 Systems, headquartered in Long Beach, California, is a roughly $14 million WMS vendor founded in 1984. In addition to its warehouse management solution, WISE WMS, it offers an ERP solution called WISE ERP that includes financials, distribution and manufacturing, as well as yard and asset management. The vendor has around 178 named customers with its top three vertical industries being 3PL, food and beverage, and automotive (including tires and wheels, manufacturing and line sequencing). Of its WMS business, 80% is in North & South America with the balance across the rest of the world. It has some sales partners, but all technical support and implementations are done by Royal 4 employees. Most of its existing customers (85%) are on-premises, but now 50% of its new customers are public cloud running on either AWS or IBM. Royal 4 customers’ revenue ranges from about $20 million to over $1 billion with most of its customers being Level 2 and 3 warehouse operations with some Level 4 and 5 operations. WISE is built around a real-time flexible rule engine, making the system highly configurable, which also lowers the implementation time and effort, and overall total cost of ownership which are important to MSE.
Synergy Logistics

Synergy Logistics is a modest software company focused exclusively on WMS and directly related products, like mobile robots, with revenue of $27 million. The vendor has around 186 customers ranging from MSEs to global organizations, but its strength and differentiation are strongest in the MSE market, with approximately 80% of its customers categorized as small and medium businesses. Its top three industries, representing 70% of its business, are, notably, e-commerce (45%), 3PL (13%) and wholesale distribution (12%). Its 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, dedicated cloud solution. Synergy scores well for Level 1 and Level 2 warehouse operations, mostly driven by its relatively strong simplicity, rapid implementation approach and enhanced implementation tools; strong adaptability and usability; and good core WMS. SnapFulfil 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 flexibility helps enable the vendor’s rapid implementation methodology, which is well-suited for MSEs.

Vinculum

Vinculum provides a broad suite of cloud/SaaS-based solutions. In addition to WMS, its Vin eRetail suite covers omnichannel product information management (PIM), automated listing to marketplaces, multichannel sales order management, returns, payment reconciliations, merchandising and real-time view of inventory in stores and warehouses. The vendor claims about 1,500 total customers across its suite with 413 pure WMS customers, targeted largely at MSE e-commerce and omnichannel retail and retail-focused 3PLs with a modest presence in B2B and nonretail 3PL. The vendor’s WMS is best-suited to paper- or mobile-based manual Level 2 and 3 warehouse operations and offers a web-based store inventory capability that could support Level 1 operations. Vinculum has a strong position for Level 1 and Level 2 warehouses, mainly due to its strong simplicity and ease of adoption. Its emphasis and strength in low-level warehouse operations is clear; more than 40% of its customers continue to use paper instead of its mobile technology for things like picking. Vinculum’s WMS is suited to paper- or mobile-based manual Level 2 and low Level 3 warehouse operations, but the overall depth of Vinculum’s core WMS capabilities does not match the functional capabilities of other vendors in this report. However, it has some strong functionality necessary for its typical APAC customer base, notably, support for complex taxation capabilities.