

Selecting the Right WMS for Your Current and Future Needs

By **Mike O'Brien**, Multichannel Merchant

According to a 2016 report from Zebra Technologies, half of IT and operations decision-makers planned to move to a new, more fully-featured warehouse management system (WMS), while 75% said they planned to do so by 2020. The challenge then comes in selecting a system that will not only meet the current but also the future demands – and growing complexity – of your multichannel business.

There's a lot to consider when selecting a WMS, including whether you need warehouse automation, and if so how much; if a cloud or an installed system makes more sense; and the need to track inventory across multiple locations and channels – a critical piece for meeting increasing customer expectations and fulfillment demands.

And there is an ever-growing list of WMS providers. From enterprise systems (Manhattan, JDA/Red Prairie, HighJump and the large ERPs) to mid-tier players (Logfire/Oracle, Deposco, Descartes) and entry-level systems (Scout, Peoplevox, etc.), the wide array of choices can seem overwhelming. Understanding your system requirements and performance criteria are critical when selecting the right solution so you can closely match your pain points with a vendor's offering and not buy more than you need.

"There are a lot of WMS products available on the market today and differentiating them is challenging because on the surface many look alike," said Doug Jones, senior vice president of operations and continuous improvement at Rue La La, a member-based flash sale



company offering fashion, home and beauty products. "For our company, it equates to selecting a business partner as well as a specific solution. Given our business model and the fact that most of our fulfillment comes from a single facility, the selection of a WMS is a large bet. So the field of viable solution providers narrows rapidly when you consider the solution sources."

A Maturing Market

Charles Ickes, chief logistics officer at designer dress and accessory rental service Rent the Runway, said WMS capabilities have come a long way since he joined the company as a startup in 2010.

"When I joined six years ago there were 20 people working in operations, and now we have 800," Ickes said. "We built our own WMS at the time because in the state of affairs at the time in terms of capabilities, it was not even possible for them to do what we were doing. There was no serialized unit information, flexibility was low and costs were high. I've seen it come so

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much further in terms of the flexibility of offerings.”

Still, Ickes cautioned that companies need to be wary about how much functionality they’re getting into. “Depending on what level you’re at, there are some serious cost structures; every feature set has a cost to it. If you look at smaller (providers), their feature set can be too shallow. On the other end, Manhattan was too rich, and you have everything in between. From my perspective, it’s a pretty amazing market, and moving quickly.”

For Brian Kirst, COO and co-founder at Total Reliance, an ecommerce third-party logistics (3PL) provider, having simple backend integration with existing systems via application programming interface (API) was a key deciding factor, as was the ability to handle a large SKU base and multiple inventory owners among its clients.

“We have clients that have anywhere from 200 to tens of thousands of SKUs and the system has to handle any combination of that,” Kirst said. “We didn’t want a system that would degrade or deteriorate as we pushed more data into it as SKU counts and clients grow. Having an order allocation system that slows down or loses efficiency wasn’t an option.”

Identifying Your Current State

When selecting a WMS, the most important thing to figure out is what your operation is doing today and your current pain points. What does your process look like? Documenting processes and identifying goals for each is an important step so you can match those against the operational restraints of a potential WMS. For instance, receiving and putaway might be in good shape, but the pick/pack/ship operation is a mess. Start prioritizing pain points then look for vendors that can deliver a solution.

“Once you’ve documented your processes and identified pain points, the next step is to understand the ways you work,” said Don White, vice president, enterprise solutions for Snapfulfil. “How fast are people working today? What are your cycle times, your pack times, what are your engineered labor standards? You

might be putting out 4,000 orders a day with four people, so it looks like 1,000 per person. But one might be doing 1,200 while another is doing 800. Understanding your own operations is the best way to get an idea of how to improve them.”

Performance Criteria and System Requirements

Jones from Rue La La breaks down the performance criteria and system requirements for WMS into four main categories: Partner viability, return on investment (ROI), system capabilities and technology stack.

“Under the category of viability we ask questions like how is their business capitalized and is it the right size for my business?” Jones said. “I also want to know who are their reference customers, are they operating like me, and over what period of time? Are they investing in and developing improvements that support my business needs? How is the system supported and what kind of training is available?”

ROI is a fairly straightforward equation: How fast will savings through efficiencies and improved performance pay back the cost of the system? Curt Barry, president of F. Curtis Barry & Co., said CFOs are looking for 18 months or less on WMS. “Two years is probably good in many SMB projects,” Barry said. “With cloud it can be faster.”

“For system capabilities, I want to know things like does it support best practice processes in context with my business needs,” Jones said. “I also want to know how their process model aligns with ecommerce fulfillment, what material handling equipment (MHE) automation options are available for integration, the population of installed vendors and product types and how the system scales for peak demand.”

Technology stack questions for Rue La La cover how the provider’s technology aligns with the company’s technical resources, whether it can be supported with existing staff, how it scales, licensing options and associated costs.



Determining the Right Amount of Functionality

The amount of functionality you need in a WMS varies widely based on many factors, including performance criteria as outlined above, as well as the size of your facilities, organization and operations. Larger or even mid-tier systems often come with capabilities that are either unused or under-used, although rolled into the overall cost.

“The business review process showed our needs (for functionality) were low as we had no real automation in our warehouse,” said Tim Iburg, director of operations for House of Antique Hardware, an ecommerce company in Portland, OR. “Implementing a WMS in our primitive warehouse, which barely uses barcodes, now brings us into the 20th century and is a big step in the right direction for a small company.”

Kirst said for him, the more functionality the WMS has, the more services he can provide to clients such as Nordstrom and Neiman Marcus. For instance, electronic data interchange (EDI) integration was a requirement for Total Reliance and its customers, letting him pull and share order data out of the back end of the WMS and provide it to these retailers in an Abstract Syntax Notation (ASN) format. Total Reliance has been using a cloud-based system from Snapfulfil for the past two and a half years.

“We looked at everything from basic inventory management to order management and value-added services,” Kirst said. “Beyond that, we looked at the ability to marry up not only system processes but those that have relationships to physical processes like directed putaway, picking, staging, things directed by the system as to where to physically put inventory to create efficiency. There’s also kitting and assembly, and dealing with multiple levels of units of measurement, from cases and pallets (for retail replenishment) to each picking (for ecommerce orders). Those are all very important in a 3PL environment.”

Total Reliance didn’t want a system that was limited in terms of just working great in a retail environment, or in ecommerce. “We wanted to make sure the system can manage both,” Kirst said.

“I think (the functionality question) depends on your starting point,” said Jones of Rue La La. “For us, we wanted the best practice solutions for our specific oper-

ating model. We do have some unique challenges that may be addressed in some product offerings, including item profiling, returns handling and slotting.”

Hosted vs. Installed Systems

The differences between hosted or cloud-based and the traditional on-premise installed warehouse systems have been diminished significantly in terms of performance. For larger enterprises with budget enough to invest in an on-premise installed system with staff to support it, the promise of cloud may be diminished. But for mid-market companies, the advantage of going to cloud storage and hosting can be significant. Cloud-based systems are designed to scale up quickly and easily.

Implementation and configuration can also be done much more quickly in a cloud environment vs. on premise. A configuration layer lets companies compress this process so they can adapt the system to deploy different methods of picking, putaway or cycle counting. That way, you can re-allocate time typically allocated to configuration and implementation to things such as training, which allows faster deployment and preparation of staff users.

Companies need to weigh a larger upfront cost followed by maintenance fees (installed) against transaction and subscription costs (cloud). System redundancies are another important part of the equation, as costs can vary between having the redundancy on site vs. what the cloud hosting company offers. Another consideration is the cost of staff to maintain an installed system vs. the cost of subscription fees that cover off-site maintenance.

Kirst said Total Reliance was reluctant to go with the licensing costs of an installed system, with maintenance of onsite servers and supporting staff. “That alone provided financial benefits as we just hired our first IT guy a few months ago,” he said. “Not managing the infrastructure is huge for us. For us as a startup, ROI was just a few months of not having that IT person to provide support.”



A cloud-based WMS works great for Rent the Runway, Ickes said, but in vetting hosted Warehouse Control Systems (WCS) – which run DC automation features such as goods-to-person, robotics, shuttles and ASRS – not so much.

“None of the (cloud-based WCS) manage hardware and automation, which threw it all out the window,” he said. “I was underwhelmed with the cloud solutions. I would’ve loved it, because everything we do is in the cloud, but one drawback is latency and timing. To run hardware, you have to have equipment on site because as soon as there is latency you have serious problems.”

The biggest downside of installed software, Ickes said, is the system upgrades.

“Cloud upgrades automatically – our Reddwerks WCS (from Dematic) doesn’t even have core software,” he said. “Manhattan for instance releases a new feature set every year, and it’s not installed because it’s a custom configuration and setup. So every year you have to look at your return on the feature set, the cost and the time down, manpower, the pain points of having it installed. A typical company with Manhattan upgrades every four to six years, so the feature set you get is what get, unless you’re into the pain of upgrades every year. Cloud is much faster, but there are limitations around customization. It’s definitely a big tradeoff, but cloud-based (WCS) for what I saw was super weak, with not a lot of features.”



tion? Jones of Rue La La breaks these out into two categories: Tactical and strategic.

“Under tactical, I want to know how the product supports continuous improvement, what KPIs are captured, what performance measurement tools there are, how you make changes in material flow and how configurable system features are. Strategic considerations include what supported supply chain network models, competitive advantages of using the system, integration partners offering value-added options like OMS and TMS and the ability to scale.”

Iburg of House of Antique Hardware said his operations team spent a lot of time measuring where cost saving could occur from its WMS implementation, including paper and printing costs, labor reductions and savings from internal errors caught before erroneous orders went out the door, cutting down on returns or replacement orders.

“We factored in a number for ‘goodwill’ from error reductions and higher visibility to where inventory items were and when they would be available to allocate to orders, such as receiving staging – they’re here but not ready to allocate to orders yet,” Iburg said.

Kirst said most of his KPIs are around orders and units shipped, given a 3PL’s transactional model. “We want to know how we can increase the number of orders without increasing the number of (WMS) licenses and labor,” he said. “When I started, the numbers were in the hundreds of orders per week. Now we’re doing 5,000-7,000 orders a day, but our license costs only increased 30%. The ability to get a lot of transaction volume from a single license is how we track (WMS) value and performance.”

Performance Metrics and KPIs

Beyond ROI – which is a major consideration – what do success metrics look like for a WMS implementa-

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