

Buyer's Guide

How To Choose the Right
Warehouse Management
System (WMS)



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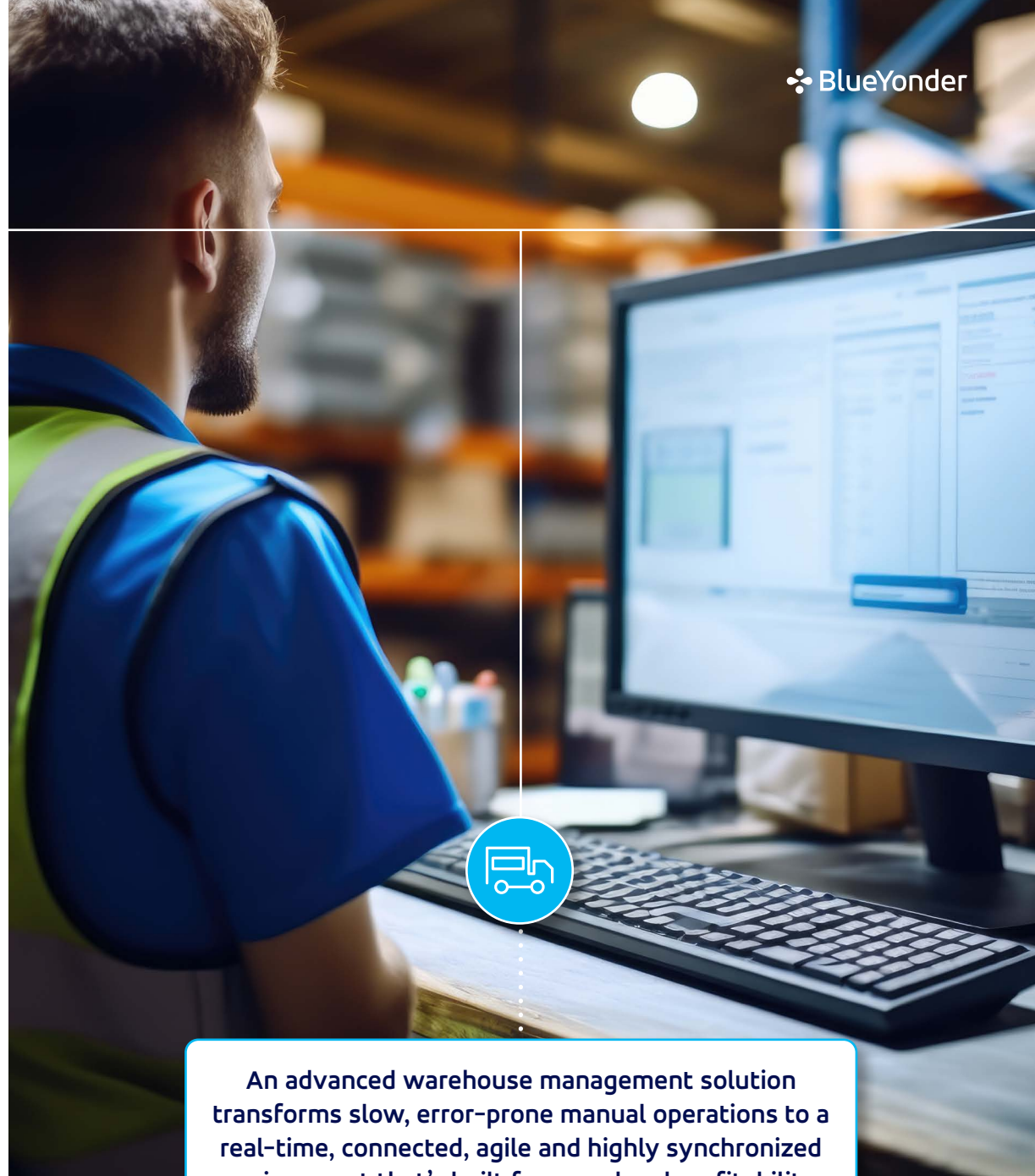


Why Do You Need This Guide?

Increasing customer demands, the growth of omni-channel fulfillment and crippling labor shortages have made a strong case for managing distribution center operations via an advanced warehouse management system (WMS) that increases speed, efficiency and accuracy.

It's become virtually impossible to profitably run a warehouse without an advanced WMS solution. And any digital system is an improvement over slow, inefficient manual processes. However, choosing the right solution can help you maximize not only the return on your technology investment — but the return on your warehouse investment, from labor to inventory.

But, with so many WMS offerings available today, how can your organization choose the right one? This buyer's guide offers a helpful, straightforward discussion of the key WMS capabilities available today — and how each can help your business address its most critical challenges.



An advanced warehouse management solution transforms slow, error-prone manual operations to a real-time, connected, agile and highly synchronized environment that's built for speed and profitability.

Warehouse Management: An Increasingly Important Competency

Warehouses have always been at the heart of the supply chain, connecting supply with demand and ensuring that customers receive orders rapidly and cost-effectively.

But in the past few years, warehouses have become a focal point as companies optimize their supply chains. Not only are distribution centers (DCs) a large cost center, but they play a critical role in maximizing customer satisfaction, sustainability and other business imperatives.

The modern omni-channel sales environment, characterized by ultra-fast, hyper-local fulfilment, has brought new pressures. Warehouse operations must be rapid, accurate, agile, efficient and synchronized. They must deliver the right product to the right place at the right time, flawlessly, even in the face of unprecedented demand volatility.

Warehouses are expected to work both harder and smarter, but they face historic labor shortages — and historic margin pressures.

How can companies manage all these challenges?



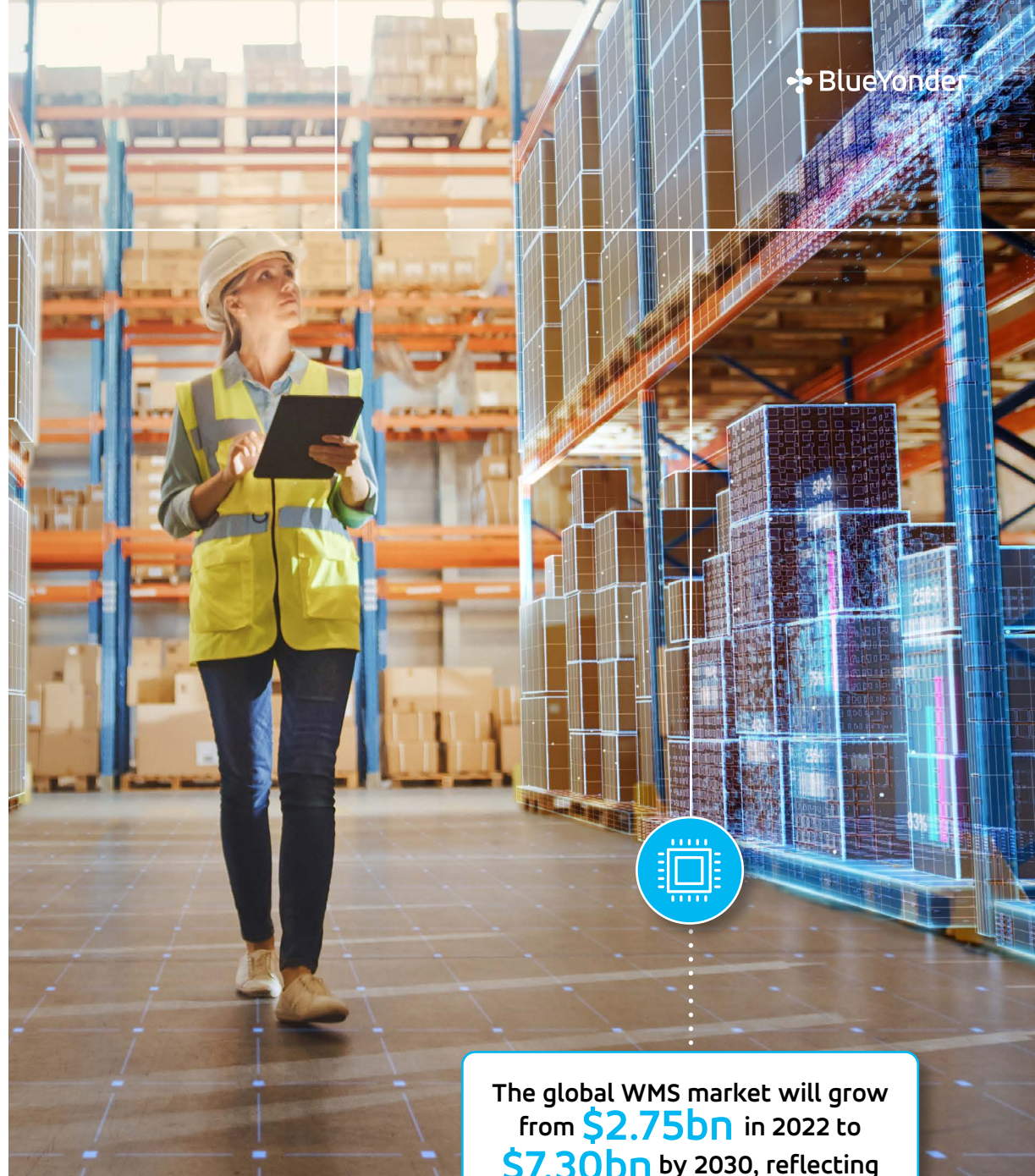
The warehouse has always been at the heart of the supply chain. But only recently have companies fully recognized its strategic importance.

Advanced Warehouse Management Systems Provide the Solution

Enabled by artificial intelligence (AI), machine learning (ML), optimization engines and automation, advanced WMS solutions help companies manage the challenges of omni-channel commerce, resource shortages and demand volatility.

Warehouse management systems help companies make informed decisions, in real time, that balance service, cost, sustainability and other objectives. They intelligently prioritize activities, identify exceptions and support autonomous operations to keep the warehouse running optimally, every hour of every day. By creating real-time, digital connectivity across warehouse operations, WMS solutions enable visibility and responsiveness from the extended supplier network to the final customer.

Today's busy DC operations are far too critical, complex and fast-moving to manage using manual processes, paperwork and consumer-grade tools like spreadsheets. Warehouse management systems unleash the power of data science and digitalization to ensure that every decision is the right one — and that all decisions are executed instantly.



The global WMS market will grow from **\$2.75bn** in 2022 to **\$7.30bn** by 2030, reflecting an annual growth rate of 13.2%.

Source: Fortune Business Insight

What Exactly Is a Warehouse Management System?

A WMS is a software platform that collects real-time information on all the moving parts of a DC, regardless of size or operating model.

The WMS shows the real-time status of orders, inventory, labor, robotics, physical assets and other resources. It helps managers see what's happening now, predict what will happen next, and manage operations for speed, productivity and profitability despite disruptions. It supports the measurement and continuous improvement of key performance indicators (KPIs).

But that's just the beginning. Advanced WMS solutions are also capable of orchestrating resources, assigning and prioritizing physical tasks, and adjusting in real time as conditions evolve. By leveraging a best-in-class WMS, companies can transform disconnected warehouse assets and processes into a seamless unit, focused on delivering fast, efficient, profitable fulfilment.

Use This Checklist To Ensure Your WMS Has the Right Capabilities.

Today's crowded WMS marketplace has created both competition and confusion. Every software provider has its own claims about what its WMS solution can deliver. But, because AI, ML, automation and other technologies are rapidly and continuously evolving, not all WMS solutions are created equal. Some deliver far more features and functionality than others.

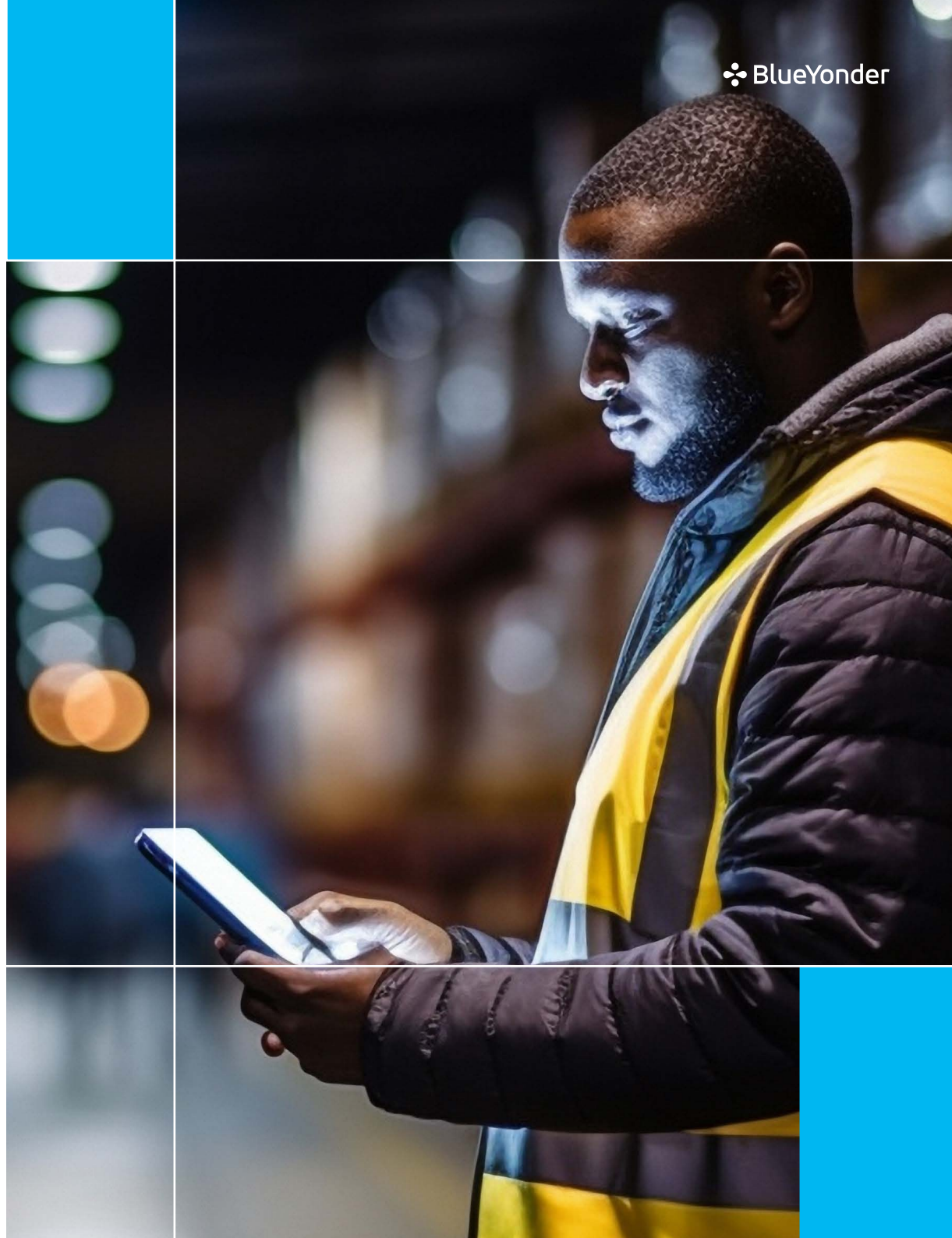
There are four “**must have**” capabilities that every WMS should deliver, at a minimum:

- » Ability to direct work
- » Flexible rulesets
- » Omni-channel capabilities
- » Extensibility

Two other capabilities can be classified as “**would be nice to have**” in terms of maximizing the return on investment:

- » Execution capabilities
- » End-to-end awareness

Beyond these six capabilities, it's essential to find a vendor with hundreds of customer implementations, a track record of success, industry recognition and aggressive R&D investments.



The Right Capabilities

Ability To Direct Work

Modern warehouses are characterized by nonstop changes in staffing levels, inventory positioning, equipment availability and work assignments. Today's omnichannel environment means that priorities are shifting constantly.

The ideal WMS solution includes tasking automation engines that gather real-time, 24/7 operations data, flag issues and generate an autonomous response. As conditions evolve, so do labor schedules and task assignments, driving a fluid, responsive and profitable warehouse. Operations are tied to a probabilistic demand forecast, but the warehouse can react to changes quickly and automatically, as tasks are re-assigned and new priorities take precedence.

The fast-moving nature of warehouse operations exceeds the capabilities of human cognition. Driven by AI and ML, the right WMS continuously identifies opportunities for efficiency and cost savings, then autonomously unlocks them to optimize daily operations for service and cost in real time.

In today's fast-moving warehouse landscape, the WMS must be able to fluidly assign and prioritize tasks, autonomously, as conditions change.

The Right Capabilities

Flexible Rulesets

As it autonomously assigns tasks and manages the moving parts of the warehouse, the WMS is guided by business rules and constraints. The challenge is that those guiding principles are constantly evolving, based on real-time supply and demand changes.

A best-in-class WMS accommodates a broad range of rulesets that span the warehouse. Rules might be aimed at promoting sustainability, protecting profit margins, meeting customers' service-level agreements (SLAs), maximizing scarce labor resources or achieving other strategic objectives. They might also be based on practical considerations like aging inventory, space constraints or the physical layout of the warehouse.

The WMS must be extremely fast and flexible in its ability to accommodate changing decision parameters. Warehouse managers should be able to easily and intuitively "fine tune" WMS engines to balance multiple objectives and achieve excellence across many aspects of performance.

In autonomously defining and executing actions, a WMS solution is guided by rules and constraints. It's critical that these decision parameters can be updated dynamically.



The Right Capabilities

Omni-Channel Capabilities

Omni-channel and hyper-local requirements have transformed virtually every aspect of warehouse operations, including foundational network models. Large, highly automated DCs will always be a critical component of the distribution network, but increasingly companies are also relying on localized fulfillment nodes such as pop-up DCs, dark stores and in-store fulfillment centers.

The optimal WMS solution is built to support both traditional DC operations and these newer models via adaptive fulfillment and warehousing capabilities. For example, the WMS should enable the rapid activation and onboarding of staff, physical assets, inventory and processes to support these new operating models. Because local demand is a moving target, companies should be able to leverage the WMS to quickly launch new pilot sites.

Look for streamlined adaptive workflows, intuitive mobile user interfaces, seamless technology extensions and updates, and other features that enable network growth and agility.

Companies are increasingly embracing adaptive fulfillment and warehousing models to drive omnichannel success. The WMS should be designed to support these new models.



The Right Capabilities

Extensibility

An ideal WMS will be delivered via the cloud and supported by specialized, scalable microservices that easily and cost-effectively extend its capabilities and are built to optimize today's complex, fast-moving distribution networks. Upgrades should be seamless and frictionless to ensure the WMS solution always reflects the newest, most innovative capabilities.

A software-as-a-service (SaaS) based architecture not only supports rapid deployment and easy extensibility, but it also enables tight integration with other systems in the business — along with both internal and external databases. A cloud-native, microservices-based WMS framework also minimizes the total cost of technology ownership and IT staffing requirements.

Every warehouse is unique, so it's essential that the WMS solution is flexible enough to accommodate extended workflows, third-party data and connectivity across the logistics network.

Today's complex, connected logistics landscape requires a WMS solution that's easy to integrate across multiple locations, systems and trading partners — as well as simple to upgrade and extend.



The Right Capabilities

Execution Capabilities

Warehouse automation is quickly becoming an imperative. But most companies struggle to coordinate execution across humans, robots and static automation to deliver the right work to the right resource at the right time — resulting in decreased steps, capacity smoothing and operational excellence.

A warehouse execution system (WES) is a value-added extension of the core WMS, bringing together, or interleaving warehouse tasking solutions and robotics platforms in a dynamic environment. The WES gathers real-time, prioritized insights and provides prescriptive recommendations that keep the warehouse running smoothly and profitably, no matter how dramatically operating conditions evolve minute by minute.

A WES capability also streamlines the process of onboarding new robotics and incorporating them into the intelligent assignment of work in the warehouse.

Enabled by machine learning, intelligent warehouse execution capabilities are becoming more important as companies need to coordinate tasks across humans and robotics, in real time.



The Right Capabilities

End-to-End Awareness

Optimizing the warehouse as a stand-alone capability delivers many benefits, including cost reductions, process efficiencies, service improvements, increased labor productivity and more sustainable practices.

But true logistics transformation can only be achieved by connecting the WMS to the transportation management system, order management system, yard management system and other advanced supply chain solutions.

Ideally, the WMS vendor will deliver a shared platform that enables this tight integration, as well as data services that are shared by all logistics stakeholders. Across the logistics network, stakeholders can share a single view of order volumes, inventory levels, asset utilization, labor availability, cost constraints and disruptions.

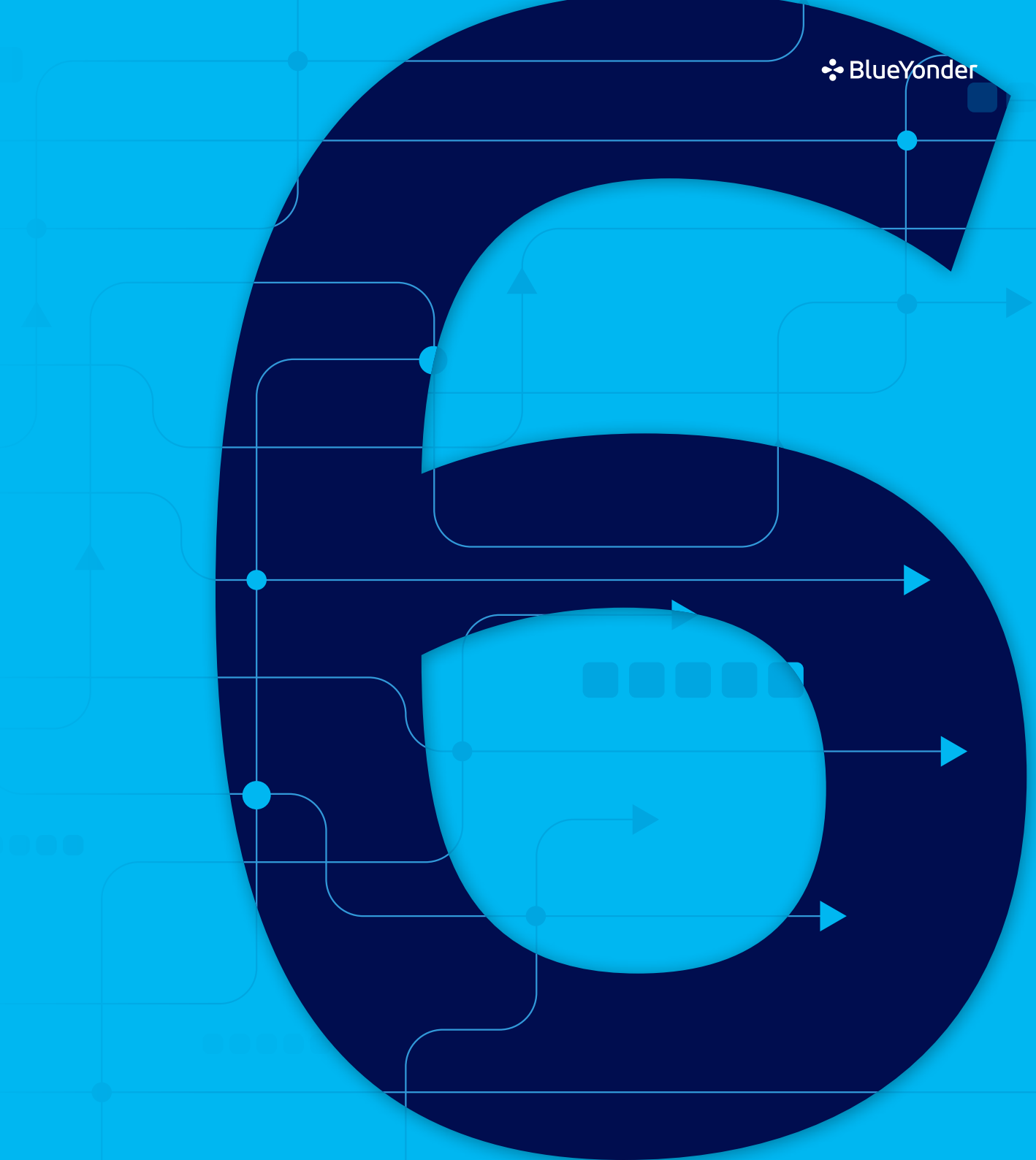
Enabled by end-to-end visibility and awareness, companies can drive a synchronized, orchestrated response across multiple functions. Iterative planning and re-planning, conducted at the enterprise level, creates a new level of supply chain resiliency.

Connecting the WMS with the TMS, OMS and other logistics systems creates broad visibility — which enables an orchestrated response when exceptions occur at any node.



Six Steps To Help You Find the Perfect WMS for Your Needs

Identifying the ideal WMS solution may seem like a daunting task — and it's hard to know where to begin. These six simple steps can start you on your journey to warehouse optimization.



1

Identify Your Primary Pain Points

What's led you to search for a transportation management solution? Is it:

- » Meeting customers' increasing service demands?
- » Combating labor shortages via automation?
- » Improving the profit margins of your warehouse operations?
- » Increasing process accuracy and efficiency?
- » Measuring and minimizing environmental impacts?
- » Enhancing employee morale and retention rates?

An advanced WMS can accomplish all these goals. But what are the “must have” and “nice to have” capabilities based on your specific challenges?



2

Begin Your Research

To identify the leaders in the crowded WMS space, ask these questions:

- » Which vendors are included in the Gartner Magic Quadrant for Warehouse Management, as well as similar reports?
- » What companies are featured in industry news?
- » Who's hosting or speaking at conferences, webinars and other events?
- » Which software companies are investing in innovation?
- » Who is introducing new features, functionality and service models?

Historic leadership is great, but find a partner who's also looking to the future.

3

Narrow the Field

Separate the WMS leaders from the followers by posing these questions:

- » Is the provider an active presence in the industry?
- » Have they created value for companies like yours?
- » Have they solved challenges that mirror your own?
- » Do they have customer case studies and references?

Schedule an in-person meeting. If you're still undecided, send out an RFP to a few vendors and ask pointed questions about their solutions, delivery model and interoperability with other systems.

Tip: If you are using an RFP, use one that truly meets your needs and in which the number of questions can be managed by the vendor and results managed by your team.

4

Ask for a Site Visit — And a Demo

Now that the field is narrowed, it's time to:

- » Invite your top vendor (or two) for a site visit
- » Introduce them to your team
- » Ask them for a “deep dive” demo
- » Request customer references and talk to them making sure they understand your needs, and you understand how they'll fulfill those needs

5

Plan For the Future

Make sure the vendor will be there for you when issues inevitably arise. Warehouse management is not an easy journey — but the rewards are well worth it.

- » Is the solution scalable?
- » Will it easily interoperate with your other systems?
- » What is a reasonable launch timeframe?
- » How will upgrades happen?
- » What services does the vendor offer?

6

Seal the Deal

Ready to sign a contract? Congratulations!
Just make sure you fully understand:

- » The software pricing structure
- » The implementation timeline
- » The support plan, including pricing for services



Blue Yonder: Established Leadership in Warehouse Management

Based on hundreds of customer success stories, decades of experience, and the industry's broadest and deepest WMS software portfolio, Blue Yonder is an acknowledged leader that should be on your short list

From its proven Warehouse Management and Transportation Management solutions to exciting new microservices like Warehouse Execution and Yard Management, Blue Yonder understands the challenges associated with modern logistics — and has the purpose-built solutions to answer evolving challenges.

Warehouses continue to change and evolve. So Blue Yonder is constantly improving its capabilities to meet emerging challenges in warehouse optimization. Blue Yonder is investing more than \$1 billion in R&D to ensure its solutions continue to represent the industry's most advanced, comprehensive and interoperable platform for warehouse optimization.

[Discover the difference](#)



Gartner

Blue Yonder has won a range of industry recognition, including being named a Leader in Gartner's Magic Quadrant for Transportation Management and Warehouse Management for **12 consecutive years**.

Gartner, "Magic Quadrant for Transportation Management Systems," Brock Johns, Oscar Sanchez Duran, Carly West, 28 March 2023.

 **BlueYonder**
Fulfill your potential™



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