

Thought Leadership Series

Unlock the Value of Digital Fulfillment: WES as a Platform for Flexibility



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The transition to digital fulfillment has many business executives looking to automation in the distribution center to help streamline processes, increase productivity and create a competitive advantage. However, automation is simply one piece of the larger transformation puzzle. Distribution center operators must begin to rethink the underlying systems that run inside a distribution center, especially in relation to the broader systems to which they interconnect.

In today's real-time streaming environment, distribution leaders are placing a greater emphasis on Warehouse Execution System (WES) software—a robust platform that orchestrates people, machines, processes, and orders in today's automated DCs.

Expanding the role of WES in the tech stack is a move from a rigid, planning-intensive, process-focused distribution center to a real-time, harmonized, fluid distribution center.

Tier-one and even tier-two WMS systems are large and complex to implement, including work execution, receiving, shipping, inventory, orders, and more. This complexity makes WMS systems inflexible and expensive to upgrade and maintain.

WES, on the other hand, is designed to be flexible enabling operations to scale up or down to meet changing DC needs and incorporate new automation technology. When WES is introduced into the equation, the need for WMS to handle execution optimization is removed. As a result, an expensive, hard-to-customize or upgrade WMS can be replaced by a lighter, or less customized, “vanilla” WMS.



While predicting the future is impossible, WES provides a way to be more responsive to changes in order profiles and developments in automation technology. Best-in-class WES platforms are built modularly to enable adoption of new functionality. This means that new capabilities, processes, and automation can be implemented without wholesale changes to WMS that can often be very expensive and time-consuming. A modular design also means that as certain technologies in your distribution center become obsolete, WES makes it easier to replace unsupported solutions in favor of a more modern one.

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Similarly, best-in-class WES ensures the greatest flexibility in choosing vendors and suppliers as well as automation technology. This includes a wide range of conveyors, merges and sorters, print-and-apply, unit sorters, and pick-to-light, as well as more advanced technology like AS/RS, AMRs, AGVs, and robotics. With WES, a broad range of automation technology options are supported, so you can choose the best solution on the market for your operation rather than being restricted solely to technologies provided by a single MHE provider and their integrated WES.

For the modern distribution center to operate the most efficiently, WES must be the core platform. It possesses holistic, real-time visibility. It orchestrates disparate manual processes and automated technologies. And it's easier and more cost-effective to customize and upgrade.

By getting the tech stack right first—either before or during the selection of automation technologies—you can make better decisions on how to align your solutions with your business goals. Only when both system and equipment design are aligned with business requirements will you see the full potential of your automation solution.

There is potential to add further scalability to WES by employing cloud technologies. For services like picking execution, reporting, analytics, and executive dashboards, the cloud increases flexibility, promotes mobility, and enables new implementations. The cloud also makes upgrades, security updates and system scaling seamless.

On the other hand, cloud-based software is dependent on network availability and latency which becomes a real problem when coordinating, controlling, and optimizing the machines in your distribution center in real-time. As a result, functions that operate on the cloud versus locally will depend on whether they are transactional or real-time based.



FORTNA CAN HELP

Elevating the role of WES in the tech stack in conjunction with your technology solutions results in a more efficient, more optimized, more scalable operation, empowering the distribution center to do more of what it does best—getting the right goods to consumers.

Contact us today at www.FORTNA.com