



PEAK PREPARATION: CHARTING A SHORT AND LONG-TERM COURSE TO HANDLE PEAK DEMAND

ABSTRACT

From Prime Day and back-to-school shopping to the big holiday test at the end of the year, peak season preparation has followed a familiar, steadily evolving approach through the years. But in the aftermath of the COVID-19 pandemic, long-term shifts that were already underway have only accelerated. In fact, a report published in Forbes credits COVID-19 as effectively accelerating e-commerce growth 4 to 6 years – causing real consequences for supply chains year-round.

Yet even as sustained order volumes rise and delivery capacities strain, supply chains must still prepare for the added surge during holiday peaks.

But simply adding labor to meet demand is no longer the easy answer to boost capacity. Labor challenges and increasingly capable technology incentivize a shift to a paradigm with greater reliance on automation as businesses scale up not only for peak season, but permanent growth in demand. And as automation plays a more important role in distribution and fulfillment infrastructure, businesses must account for maintenance and lifecycle planning to avoid costly downtime during peaks.

This white paper discusses how the landscape surrounding peak preparation has evolved and lays out important considerations to ensure business continuity and realize the full value of automation investments.

**YEAR-ROUND CHALLENGES,
MAGNIFIED DURING
PEAKS AND SPECIAL
CIRCUMSTANCES**

E-commerce volumes in general continue to rise, with e-commerce accounting for 13.6% of total retail sales in the first quarter of 2021. For comparison's sake, e-commerce accounted for 9.4% of total retail spending just a few years ago in the first quarter of 2018, and 4.7% a decade earlier in the first quarter of 2011. But as supply chains adjust to this lasting shift, holiday peaks can exert extra stress that threatens to push fulfillment and delivery networks beyond capacity.

To handle peak season surges, carriers often assign cut-off dates for delivery in time for the holidays and limit the number of items they will pick up from certain locations in an effort to regulate the flow of online shipments. But no matter how much carriers look to balance order volumes across delivery networks, volumes are still exceptionally high during the holidays – everyone is shopping and with the same deadline. With the window to pack, ship and deliver shrinking, operations must work more quickly and efficiently than ever. However, adding labor to boost capacity, is an increasingly dubious proposition.

According to a recent supply chain survey, 73% of respondents reported that it took more than 30 days to fill an open job position. And there are a lot of open positions to fill, as warehouse turnover reached a new high of nearly 60% in 2020. What's more, the constant cycle of hiring and training can get very expensive. The Society for Human Resource Management pegs the average cost per hire at over \$4,000, a number that can be even greater amidst the industry's severe labor shortage and high turnover.



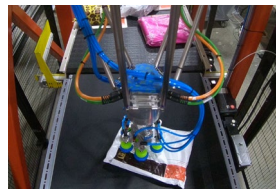
EMBRACE AUTOMATION AS A TOOL TO SCALE

Given long-term industry trends, scaling up for peak season is no longer a fleeting, temporary act. Instead, it requires a more permanent, strategic shift to leverage automation.

Repetitive, low-value tasks can be delegated to automation, reducing overall labor requirements and allowing workers to handle less physically demanding responsibilities. Some examples include:



Unloading trailers - Using extendable conveyor that reaches completely inside a trailer can allow a worker to simply lift, turn and place parcels at an ergonomic height.



Sorter induction - Pick-and-place robotics or automated roller belt solutions can replace the manual task of converting incoming bulk flow into a single-file stream suitable for automated sortation systems.

These smart automation deployments can not only boost overall output, but also reconfigure processes to space workers further apart and help maintain proper social distancing.

KEEP MISSION-CRITICAL SYSTEMS MOVING

A greater emphasis on automation means a greater dependence on effective maintenance to keep uptime high. Operations must take steps to ensure automation is in proper working order – the cost of unplanned downtime is high, especially during peaks.

But of course, there's no one-size-fits-all approach to maintenance. Distribution operations need to build an understanding of their target performance levels and available resources to create a best-fit service program, whether that's reactive, proactive or even predictive maintenance.

To prepare for peak season, start with a reliability audit of equipment and assess critical processes. These system assessments should come 8 weeks in advance of peak season, though 3-4 weeks can be an acceptable minimum. This process works to benchmark current system health along with identify items in need of immediate attention, such as restocking spare parts inventories and executing priority service functions.

System assessments can also provide longer-term guidance, with potential upgrades to boost performance that can help with expected volumes for future peaks, too.

Partnering with an outside service provider enables the most effective assessment possible, as a fresh perspective can flag items that in-house personnel who work with the system everyday can overlook. However, developing relationships with a limited number of trusted vendors for essential tasks like preventive maintenance and repairs can be challenging – but also rewarding. Consolidation allows operations to scale more efficiently by working with a partner already familiar with the facility. Limiting the redundancy of repeated briefings and trainings, and reducing ongoing management and communication to help facilitate compliance.

CUT DOWNTIME FROM DAYS TO MINUTES

System assessments are valuable tools for all operations – even those with strong maintenance regiments.

MHS visited a customer site for a standard system assessment before peak season – and the system was in very good shape. But the facility had a wrinkle – temperature! While the conveyor systems in ambient sections of the facility passed typical checks, three belts in the cold section were at great risk of failure at any time. The at-risk belts were replaced at a strategically planned time for minimal impact on the customer's operation, ahead of peak.

Having a maintenance partner come in and perform the assessment, generate the report and make the replacements required a very small investment. But as the old adage goes, an ounce of prevention is worth a pound of cure – a planned remedial service is monumentally less costly than an unplanned system outage during a peak run.

PUT TECHNOLOGY TO WORK TO KEEP SYSTEMS AT PEAK EFFICIENCY

Skilled technical labor is an especially limited resource, so as supply chains rely more heavily on automation, they must deploy what technical resources they do have as efficiently as possible. To avoid unplanned outages that can be crippling during the peak rush, a computerized maintenance management system (CMMS) provides the digital paper trail necessary to do just that and streamline maintenance operations, managing work orders, parts and tracking asset history. But that's just the beginning of what technology can do for maintenance operations.

Putting the Internet of Things to work in the supply chain requires the expertise to put the right data to work for practical, targeted insights – it's not about just plastering facilities with sensors from dock to door. This requirement emphasizes the need for a strong maintenance partner, who has done their homework with asset modeling to establish thresholds for critical data points, which in turn drive service requirements. These targeted insights enable the most targeted, effective deployment of technicians to keep facilities moving as efficiently as possible.

THE RIGHT SHORT- AND LONG-TERM FIT

Planning for peak volumes requires comprehensive expertise – especially when planning for peak means considering sustained growth, changing industry conditions and unique circumstances. From system design and implementation to ongoing service and lifecycle planning, the right partner can provide the framework to meet current demands while maintaining flexibility to handle expected seasonal demands and other, unforeseen challenges.

When done right, seasonal preparation starts well in advance of peaks to ensure business continuity, and considers daily operational and the future to maximize long-term value.

To get started preparing for peak season now, refer to this MHS infographic.

Download the infographic

