



DC Automation Trends

Increasing Warehouse Productivity with Self-Serve Locker Solutions

Every **Thing** is Possible.





Automating the management of highly-valuable assets, including hand held scanners other mobile devices, decreases operational costs and increases productivity.

The very concept of a distribution centre is in flux. No aspect of D.C. operations escapes scrutiny today – including the way in which tools and devices are managed and deployed throughout a facility.

Technology has transformed the tools and devices themselves, providing warehouse workers with unprecedented levels of speed and accuracy. But the bigger challenge today comes down to something more basic: the question of how these highly-valuable mobile devices – scanners, headsets, tablets, label printers and the like – are distributed and tracked across shifts.

Self-serve, automated locker solutions offer a simple way to address this challenge, increasing worker productivity and decreasing costs in the process.

The number-one issue in any D.C. or warehouse today is productivity. To meet the ever-increasing demands of the e-commerce age, facilities strive to move materials in and out the door more quickly, and at a lower cost.

Lean principles are designed to help facilities yield these improvements. The focus is on eliminating waste, from excess time spent executing a task to the squandering of materials and equipment. Any step that doesn't add value to the operation is an unnecessary cost and a target for elimination.

A minor inconvenience has a major impact

The bigger the facility, the higher the stakes. Imagine a 90,000-square-metre D.C. – hardly atypical among today’s high-volume supply chains. Workers might spend 15 minutes or more walking to their stations from the storeroom where they pick up a mobile device. And should a device’s battery die during a shift, it’s another long walk to and from the storeroom for a replacement.

“You’ve lost a tremendous amount of productivity because workers aren’t able to utilise these devices as well as they could,” says Kent Savage, founder and CEO of Apex Supply Chain Technologies.

Mobile devices are, of course, essential assets in this environment. Without them, work in the warehouse comes to a complete standstill. Yet many operations continue to store and distribute these valuable items manually from centralised locations within the facility. They are managed by one or more employees who would be more productive on the warehouse floor. It’s an unwieldy process with the potential for wasted time and lost or misplaced equipment, ultimately contributing to inaccurate scanner inventory data.

Point-of-work access increases efficiency, productivity

The solution lies in an automated system matching the technological sophistication of the mobile devices themselves. Instead of centralising the storeroom within a large facility, warehouses deploy self-serve lockers at multiple strategic points putting mobile devices closer to where the work is done.

At the beginning of a shift, workers use their secure ID badges to acquire the mobile device they need for their tasks and begin their shift immediately. At day’s end, they return it the same way to the same location. The device is automatically logged back in and the day ends as quickly as it began.

Such a solution is the AXCESS™ 6100 self-serve, automated locker from Apex. The solution combines secure lockers with the Apex Trajectory Cloud™ software platform to automatically keep track of who is using each device at any given time, when it’s due back and its current condition. This data is cloud-based and available in real-time, giving management 24/7 visibility into equipment usage patterns and other process insights.

Checking devices out and in takes a matter of seconds. By contrast, the traditional manual transaction can take several minutes, especially when multiple workers are queuing up at the beginning or end of a shift. And if an item isn’t returned as scheduled, a notification is automatically sent to a supervisor. But no employees are required to oversee the process up to this point.

Automation creates employee accountability

The AXCESS solution “introduces accountability into the system,” says Savage. “It’s a self-serve, automated system that provides an electronic audit trail of every transaction.”

The solution also allows workers to identify any conditional changes in the device when it’s returned. An item in need of recharging, repair or recalibration can be instantly flagged with the push of a button. In such instances, the compartment locks so that the item isn’t assigned to another employee. A manager is automatically notified to attend to that device.



The Apex solution relies on a cloud-based data platform to track device status in real-time and automatically alerts managers if devices aren't returned as scheduled.

The 6100 locker series, which easily scales according to the size, volume and layout of any facility, can result in a significantly higher rate of mobile device utilisation. Warehouse managers typically see improvements of at least 25 percent. Multiply that by a thousand or more devices within a big D.C., and the savings can quickly add up to “tens of millions of pounds,” says Savage.

Self-serve automation: a global best practice

Some of the largest brands in the world, including Amazon, are using Apex technology. Amazon has deployed well over 1,000 Apex self-serve, automated devices through several of its distribution centres to manage inventory tracking assets and other items.

Another major retailer uses Apex lockers in the back of its stores to manage and distribute the devices used to track inventory and conduct daily price changes.

Distributing these devices manually was leading to unacceptable delays and downtime. In some stores, employees could spend half an hour looking for a scanner and mobile printer. This could happen several times a day in each store. Across shifts and stores, the time saved quickly translates to millions of pounds in recovered productivity.

The retailer reports less employee downtime and a reduction in damaged and missing equipment. All of this has helped to increase productivity and device utilisation has tripled. This has eliminated the need for thousands of extra devices throughout the retailer's stores.



Hand-held scanner utilisation can increase by 25% or more after automating the asset management process.

Easy to implement. Easy to afford.

Smaller warehouse and retail operations can benefit from the Apex technology as well. Savage notes that the system can be delivered to users by subscription, eliminating the need for capital investment and maintenance costs. The subscription price includes hardware, installation, data management, and extended maintenance. “It’s a soft cost,” he says, “not a capital expense.”

All of which adds up to an immediate payback on the cost of a system that transforms the way in which inventory-control equipment is managed. New data shows that a typical warehouse employee using the Apex solution can save up to 30 minutes per shift, Savage says.

In today’s intense, high-speed fulfilment environment, such savings can be critical to the success of a supply chain. And as distribution centres adapt to an unprecedented pace of change, self-serve, automated lockers represent a simple way to reduce costs and improve performance.

To learn more about handheld device management from Apex Supply Chain Technologies, visit ApexSupplyChain.com/gb/AssetManagement, email us at info.eu@apexsupplychain.com, or call 0800 840 4776 or +44 (0)1905 388 194 to visit our Technology Centre.

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