MODERN
MATERIALS HANDLING®

MAKING THE CASE FOR

CLOUD ROBOTICS

The Top 6 Ways Cloud Robotics Advance Your Operations

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R obots can mimic what people or fixed, automated systems do. They can move goods from one place to another, drastically reducing the amount of foot travel for workers. They can assist humans with order picking by bringing them the correct goods or being nearby when goods are picked manually from shelves. But unlike humans, they never get tired; and unlike traditional automation systems, they don't take a year or more to acquire, install, test and deploy.

Speed and flexibility are at the heart of the why Cloud robotics are a good fit with today's challenges. Think in terms of on-demand automation—the ability to deploy automation at will, not only to assist human associates with order picking, but for dozens of potential workflows in warehouses or manufacturing plants.

Ultimately, Cloud robotics helps a company on several vital fronts, including:

SPEED OF DEPLOYMENT AND RECONFIGURABILITY: A Cloud robotics solution for materials transport can be configured, mapped and deployed in eight hours or less. Solutions that involve integration to warehouse management systems, warehouse controls, or shop floor control systems take a bit longer, but can still be up and running in a matter of days or weeks, rather than the several months more traditional automation takes. Workflows and robot assignments can be modified quickly via Cloud-based visual configuration tools, as automation relies on this speed and flexibility found in Cloud-based mobile robotics software.

THE ABILITY TO CREATE AND SUPPORT MULTIPLE TYPES OF ROBOTIC WORKFLOWS:
Robots have been around a long time in industrial settings, doing niche, fixed tasks like palletizing or assembly of heavy parts. These solutions work, but just for one thing. The key to flexible Cloud robotics is that one platform can be used to create and manage many tasks— from robot-assisted order picking that massively improves labor efficiency, to replenishment of automated systems, to long-range materials transport or with the right attachments, functions like automated cycle counting.

NO IT BURDENS OR HIDDEN COSTS:
Under a subscription model, Cloud robotics can provide all the robots and attachments as well as maintenance and support under a predictable monthly fee. Since the solution is completely Cloud-based, there is no server or database to install on site, and even the robot hardware can be included under a Robot-as-a-Service arrangement.
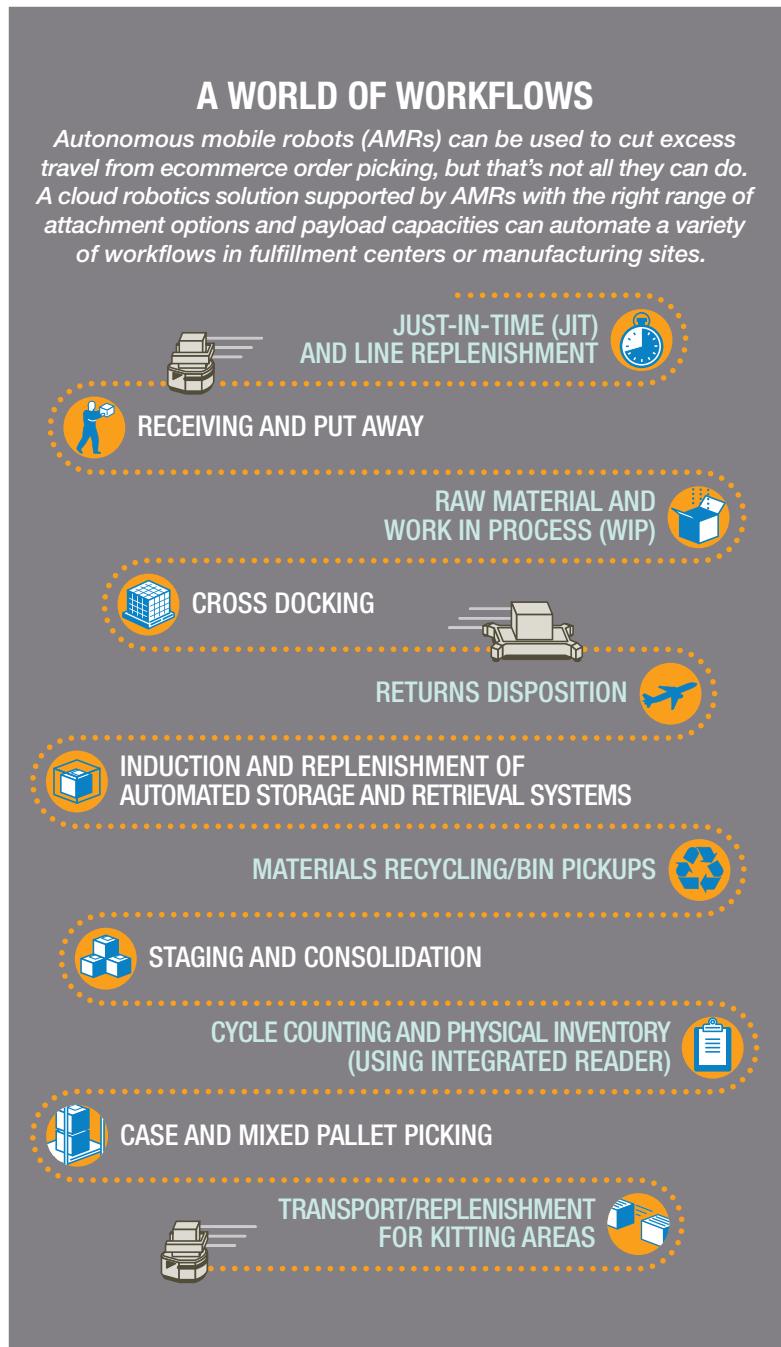
BUSINESS INSIGHTS FOR MANAGERS:
The Cloud-based software is used not only to configure and set up the solution, but to generate business insights for managers. The software provides users with a variety of configurable metrics under a dashboard format. When used in concert with certain warehouse management system solutions, the Cloud-software can also provide users with pick path optimization functionality. The Cloud approach also ensures that the latest vendor functionality such as operational metrics are always accessible to management.

BETTER SAFETY AND FLOW FOR THE FACILITY: Mobile robots that are capable of transporting loads ranging from full pallets or heavy parts to small items in bins have the end effect of reducing potential dangers in a facility. With robots reducing foot traffic in a facility, and fewer drivers and lift trucks needed to transport materials, there is simply less chance of collisions.

DO MORE WITH LESS: Cloud robotics is all about being able to automate tasks at will— when and where the need arises, without having to recruit dozens or more workers or wait 12 months or more to install fixed automation. The result is that an operation can reliably fulfill orders and meet production expectations during peak seasons without dealing with skyrocketing labor costs and overtime, or having to install fixed, purpose-built automation that will be under-utilized for much of the year, or can't adapt to market changes or to multiple third-party logistics clients.

A WORLD OF WORKFLOWS

Autonomous mobile robots (AMRs) can be used to cut excess travel from ecommerce order picking, but that's not all they can do. A cloud robotics solution supported by AMRs with the right range of attachment options and payload capacities can automate a variety of workflows in fulfillment centers or manufacturing sites.

- JUST-IN-TIME (JIT) AND LINE REPLENISHMENT
- RECEIVING AND PUT AWAY
- RAW MATERIAL AND WORK IN PROCESS (WIP)
- CROSS DOCKING
- RETURNS DISPOSITION
- INDUCTION AND REPLENISHMENT OF AUTOMATED STORAGE AND RETRIEVAL SYSTEMS
- MATERIALS RECYCLING/BIN PICKUPS
- STAGING AND CONSOLIDATION
- CYCLE COUNTING AND PHYSICAL INVENTORY (USING INTEGRATED READER)
- CASE AND MIXED PALLET PICKING
- TRANSPORT/REPLENISHMENT FOR KITTING AREAS

The great thing about on-demand automation is that it gives a company the capability to deploy automation whenever they need need it, and change it whenever they need to. That fits with today's critical challenges, like spikes in order volumes, severe labor shortages, and the rapid evolution of fulfillment networks.