

**Your Trusted
partner
in digital
transformation**



**Private 5G for
Logistics
Centers**



Transforming Logistics & Retail



Since 2003

50K+

Handheld Terminals,
Tablets, Printers,
Scanners etc.

900+

Installed in
Warehouses

100 K+

Electronic Shelf
Labels

170+

Smart
Lockers

AMRs


3.600
Customers

60-70%
Top 300
companies
in Greece

PreSales & After Sales
Certified Service
360° Technical Support

130+
Active Service Level
Agreements (until 2030)





Why Private 5G is Crucial for Logistics Centers and how 5G can reshape future ?

Today's Logistics Centers



In today's fast-paced logistics landscape, the quest for operational agility and efficiency is paramount.

Logistics Challenges

01

Growing E-commerce Drives Changes

Decision makers rank returns management as their operational challenge, along with many fulfillment-related outbound operations.

02

Labor Constraints

A leading Automation Driver.

03

Optimization of Warehouse Operations

Inventory accuracy and asset visibility.
Lineside replenishment with JIT inventory reporting.
Space is becoming more and more important.



Decision-Makers' Top Three Challenges Due to Increased E-Commerce




1 Faster delivery to end customers



2 Increased transportation costs



3 Inventory accuracy and visibility



Private 5G stands out as a key new technology in this pursuit, it's about charting a course for a future characterized by unparalleled growth and innovation offering more than just robust connectivity



5G is set to become the linchpin, ensuring seamless communication between machines (S/W, H/W) and enhanced operational efficiency.



Its broad applications range from ensuring safety at the workplace with wearable devices to redefining order fulfillment speeds.

Dedicated 5PG network within the LC coupled with 5G-enabled devices and sensors

Prove a safe working environment

5G & wearable devices for employees

Monitor health vitals and environmental conditions

5G's precise tracking lets the safety team immediately locate them



Report Inventory and Operation In real time to eCommerce customers

Barcode readers are far more reliable when connected to a P5G network

Workers move around while keeping the connection and despite a large number of simultaneous connections

Picking operation and the inventory are maintained in real time and errors are minimized.



Dedicated 5PG network within the LC coupled with 5G-enabled devices and sensors

Manage efficiently the Inventory

Integrate advanced tools (like sensors, 5G scanners) into the inventory process

Devices, enhanced by the speed and reliability of 5G ensure that every product is swiftly logged and accurately tracked, eliminating the guesswork

Real-time tracking of 5G devices paly vital role, in monitoring movement and location.



INTRALOGISTICS

Use mobile devices to film real-time

Connection remains stable and the transmission remains at an extremely high resolution, even if the technician has to move around the shop floor in the process.

High Data Transmission rates with 5G enable HQ image transmission and analysis in real time.

Dedicated 5PG network within the LC coupled with 5G-enabled AMRs

Labor Challenges in the Intra-logistics

Adopting 5G-linked AMRs

Assigning tasks like picking and restocking to these robots reduces reliance on manual labor.

For 24/7 optimal performance, these robots demand the impeccable connectivity that only private 5G currently provides.

Data Security by private 5G networks

Embrace the advanced security measures

Distinct from public networks, private 5G boasts enhanced encryption techniques and rigorous security protocols designed to shield sensitive information

Only vetted devices and authorized personnel gain access.

The inherent security architecture of private 5G further minimizes susceptibility to external threats, unauthorized intrusions, and potential breaches, providing an additional layer of assurance to businesses and their clientele.

Rapid Modernization in Warehousing Operations driven by Decision Makers

96%

Accelerate timelines of projects

This indicates a pronounced shift in strategy and operations, reflecting the perceived necessity to adapt and innovate in an ever-evolving industry landscape.

83%

Associate enhanced productivity to Automatic Mobile Robots (AMRs)

83%

A Phased Approach to Automation

Plan to Augment labor with supportive software & devices



Associates' Top Benefits of Working With AMRs

83%

Increases productivity

83%

Reduces travel time and walking

73%

Improves accuracy

Automated Mobile Robots

USE CASES



Robotics Automation

HOW IT WORKS

World-Class Cloud-driven Mobile Robots and Software

Versatile, intelligent Autonomous Mobile Robot (AMR) solutions safely transport mixed payloads and enhance manual material handling workflows to increase efficiency and productivity.

Pick-to-Tote



50%
Cycle Time Improvement

Integrate with existing conveyor infrastructure to support automatic tote loading and unloading.

AS/RS to Packout



25%
Throughput Increase

Autonomous pick up and delivery of carts from automated storage & retrieval systems to packout & shipping.

Shipping Lane Delivery



1,200
Robot Trips / Month

Safely transport pallets on inbound and outbound operations.

Fulfillment



35 - 45%
Pick Productivity Increase

For the ultimate in pick efficiency in high-volume, high-velocity fulfillment centers.

Lineside Delivery



3x
Capacity Increase

Automate deliver of materials and kits between workstations throughout production cycle.

FetchCore
Enterprise Software



Interacts with
Appliances Portfolio



Can integrate with
WMS / WES



Pick-to-Tote with Push Button Delivery

Customer

Fortune 500 Distributor

Solution

- Associates pick from aisles to tote, then drop at a non-powered, tote retention table (TRT)
- Robots are called for pickup using an IoT button
- Robot automatically inducts tote at TRT, navigates to sorting and discharges tote onto motor conveyor

Benefits

- Increase daily throughput vs. manual operation
- Eliminate manual walking & transport
- Replaces costly fixed conveyor, reclaims valuable warehouse space

Results:

35,000

Labor hours Saved /
Year

35-40%

Cycle Time
Improvement

13%

Floor Space
Regained



AS/RS to Packout Delivery

Customer

Leading distributor of electrical components

Solution

- Once product and material is picked from the VLM, it is placed onto an AMR or FetchCart and automatically delivered to its destination
- Associates do not have to leave the VLM storage area
- Replaced permanent infrastructure such as conveyors

Benefits

- Make manufacturing & distribution operations flexible, adaptable, and scalable
- AMRs can serve as a flexible, lower-cost alternative to a fixed conveyor

Results:

25%

Throughput Increase

13%

Floor Space Regained



Robotics Automation™

Shipping Lane Delivery

Customer

Automotive Parts Distributor

Solution

- Associates build a mixed pallet with order picker in storage aisles
- Completed pallet is dropped on a Pallet Transfer Station and a robot is called for pickup using a tablet
- Robot docks with Pallet Transfer Station, picks up pallet and delivers to shipping dock for trailer loading

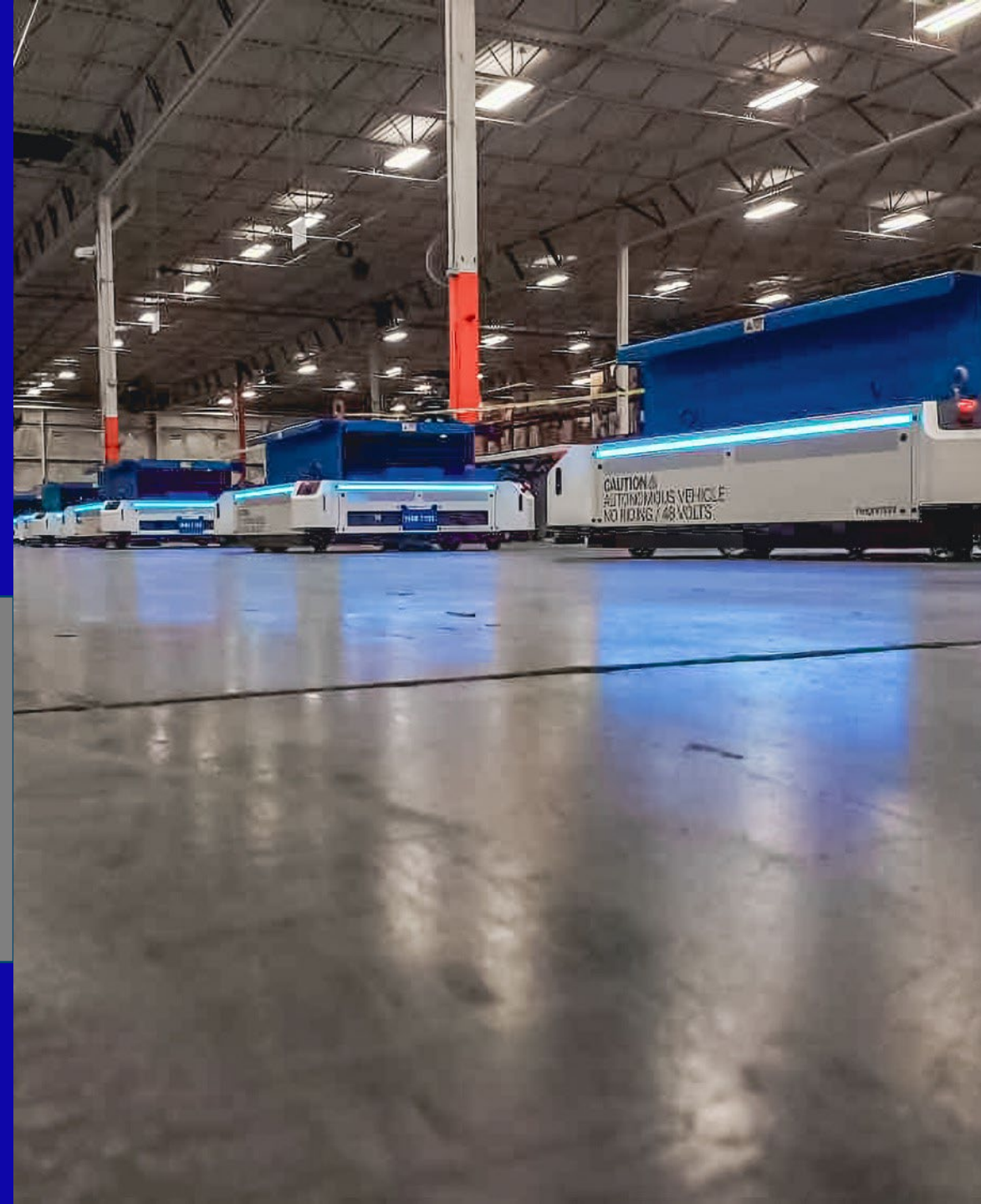
Benefits

- Eliminate manual travel with a pallet jack or forklift and increase safety by automating pallets movements
- Interleave other workflows such as dunnage removal for increased utilization and ROI

Results:

~1,200

Robot Trips /
Month



Lineside Delivery

Customer

Custom Apparel Manufacturer

Solution

- AMRs are loaded with raw material, work pieces, or kitted components picked from storage
- AMRs automatically deliver materials and kits to the first production stage
- AMRs can be intelligently routed to next available production station

Benefits

- Space constraints do not allow fixed conveyors
- Operational flexibility
- Increase daily output
- Keep skilled technicians focused on high-value assembly tasks, not manual material movement

Results:

3x

Production
Capacity Increase

33%

Facility Space
Improvement



Fulfillment

Customer

Leading Third Party Logistics Provider

Solution

- Empty totes are scanned and loaded onto the robot
- Robots automatically move to picks based on order optimization
- Pickers meet robots in aisles and are directed by the robot on which items to pick and place.
- Once picks are completed, robots automatically deliver items to packout

Benefits

- Staff focused on picking rather than unproductive walking
- Frees up staff for returns and replenishment, which in turn increases throughput for end customers
- Does not require additional IT infrastructure such as dedicated WiFi or on-prem servers

Results:

**35 -
45%**

Pick Productivity
Increase



Thank you!



Marketing Director

atamiolaki@mobiletechnology.gr

www.mobiletechnology.gr

