New Software Strategies for Omnichannel Order Fulfillment

Presented by:

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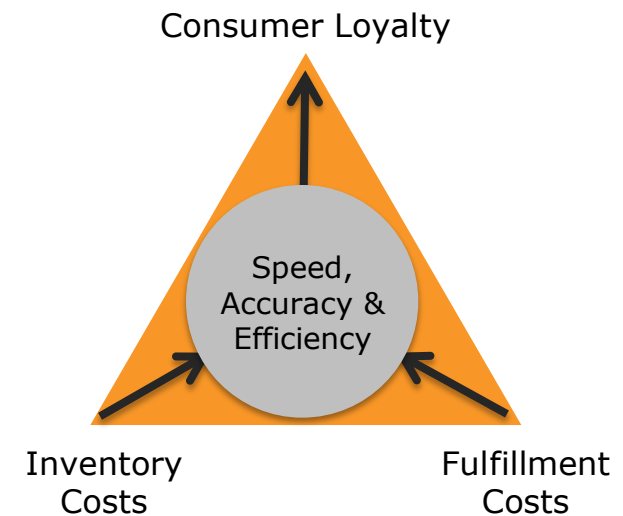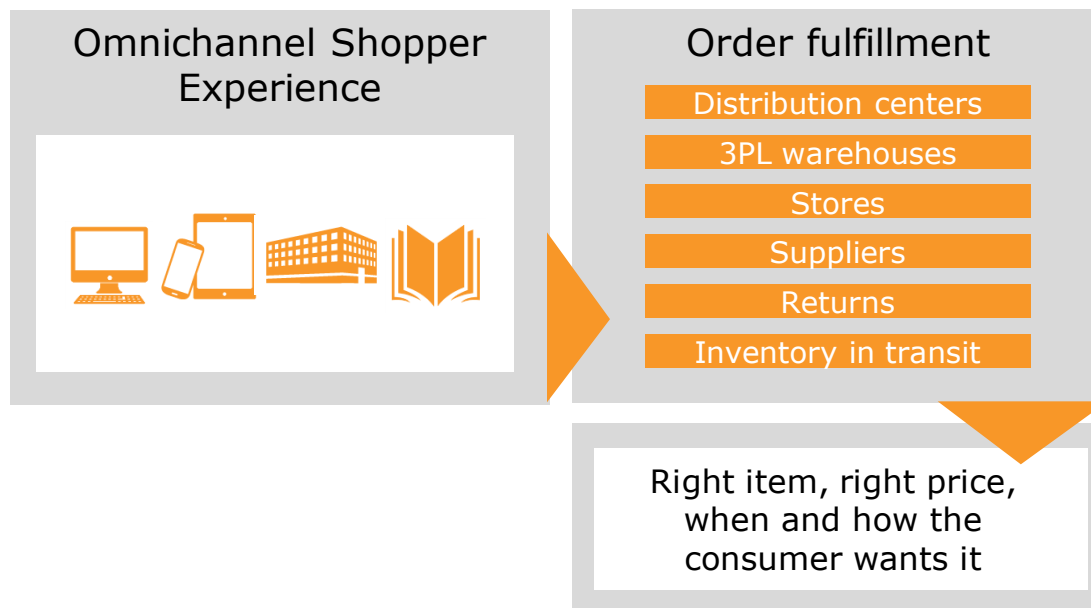**Sponsored by:**

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Abstract

The demands of today's omnichannel retailers require fulfillment operations to **ship orders faster and more efficiently** than ever before. This seminar will discuss how **intelligent software** driven by specific business requirements can enable fulfillment systems to **adapt to real-time process, equipment, labor and inventory** information and make **decisions at the speed of automation**.

Key takeaways: what to look for when evaluating technologies to enable omnichannel fulfillment

State of the industry: omnichannel

- Requires intelligent fulfillment
  - Service levels drive dynamic order wells
  - Inventory leverage requires flexible fulfillment
  - Labor efficiency requires adaptive and directed work flows

Omnichannel Shopper Experience	Order fulfillment
	Distribution centers
	3PL warehouses
	Stores
	Suppliers
	Returns
	Inventory in transit

Right item, right price, when and how the consumer wants it

Consumer Loyalty

Speed, Accuracy & Efficiency

Inventory Costs

Fulfillment Costs

State of the industry: labor

- Labor: requires intelligent directed workflows
  - Qualified workers scarce and more expensive
  - Training and keeping them is a challenge
  - 25% of supervisors are 55+

State of the industry: automation

- Increasing capacity, speed and efficiency
  - Labor-only operations peaks at 2,000–3,000 orders per day
  - Requires decisions at the speed of automation with operational information
  - Drive throughput to outbound in best trailer load sequence for store and consumer home deliveries

Omnichannel challenge

- Buy anywhere, fulfill anywhere, return anywhere is the future
- UPS and commSource say:
  - 44% more likely to shop retailer if they can buy online and pick up in store
  - 62% want the ability to buy online and return items to a store
  - 44% of online shoppers abandon shopping carts due to the estimated delivery date
  - 78% pick cheapest delivery, 1% = next day, 5% = 2-3 day, 16% = 3-5 days
  - 8% of online shoppers fall into the "speeders" segment, <=3 days for delivery, millennials and social networkers are key demographic
- Nielson: Nearly 50% of U.S. smartphone owners use shopping apps each month
- Booz & Co.: 40% of shoppers browse in a store before buying online

Omnichannel defined
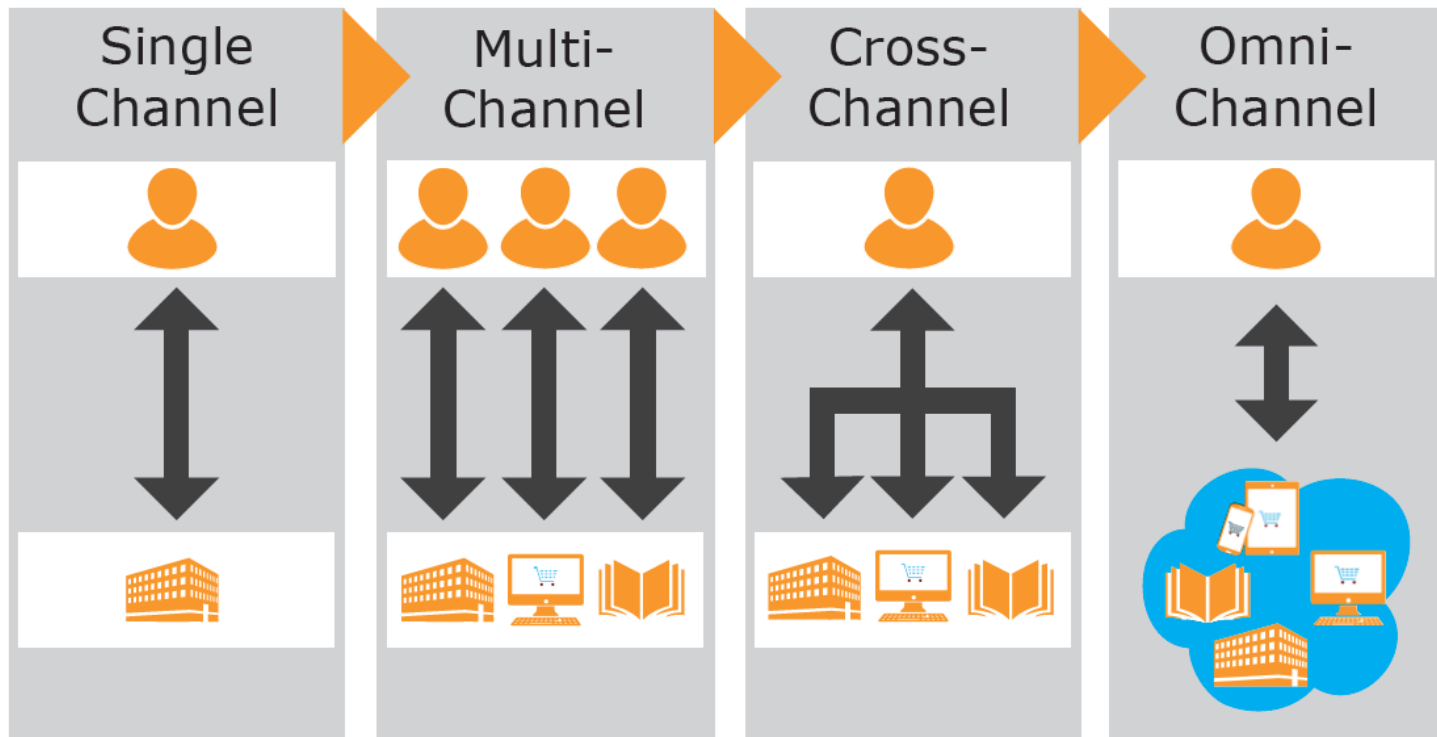
Single Channel

- Customers and retailer have a single touch point

Multi-Channel

- Customers see multiple independent touch points
- Retailer's channels operate in independent silos

Cross-Channel

- Customers see multiple touch points as the same brand
- Retailer has a unified view of customer but operates in functional silos

Omni-Channel

- Customers have a holistic brand experience
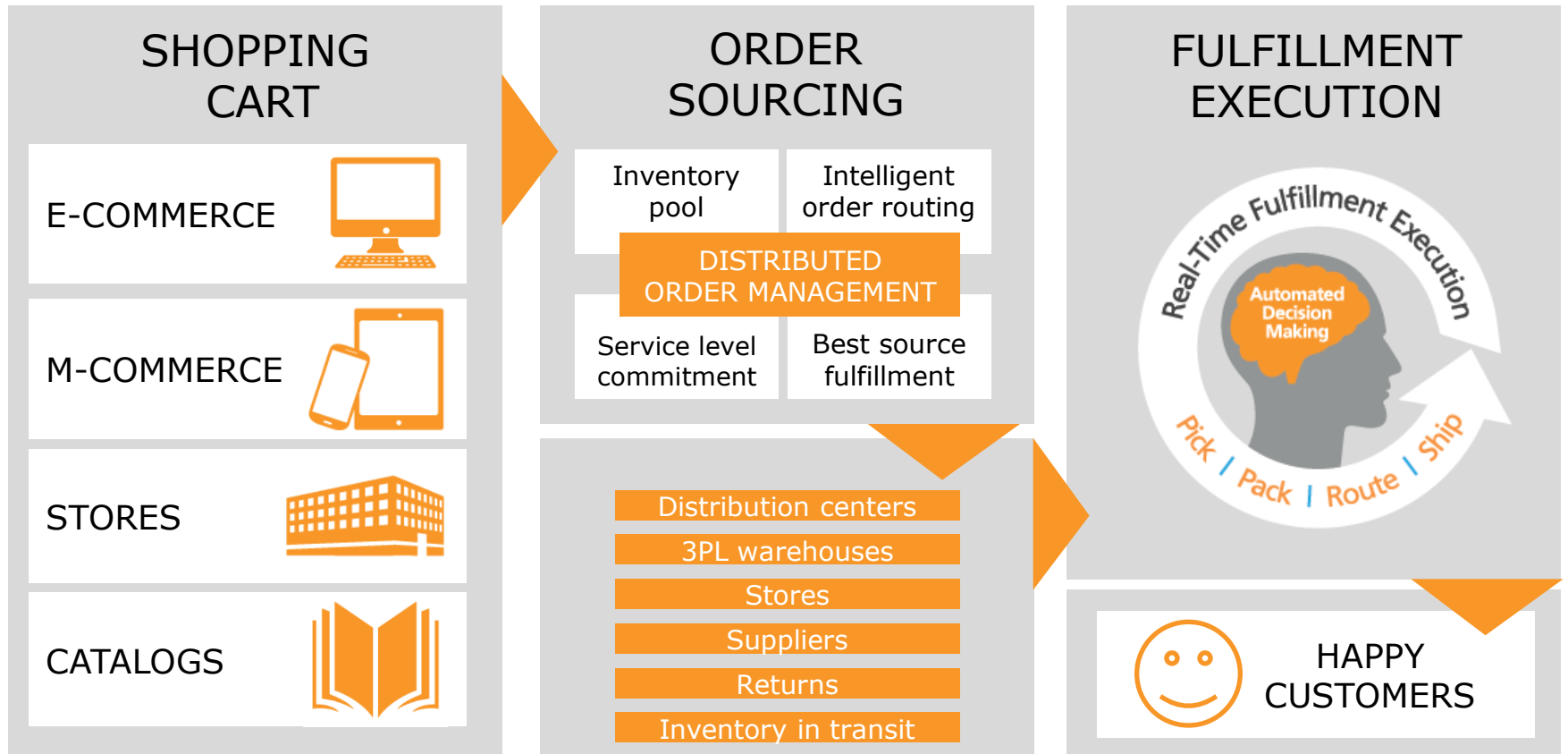- Retailer strategically leverages a unified view of the customer

The new omnichannel reality

- Real-time, event-driven data needed to optimize fulfillment and automation
- Traditional ERP and WMS systems cannot provide this capability now or in the near future
- The basics needed:
  - A fully integrated, omnichannel-capable fulfillment execution system
    - One single, physical inventory to satisfy all channels
    - Breaks the barriers of WMS vs WCS into real-time fulfillment execution system
  - An integration tool/engine that can quickly link diverse WMS, TMS, OMS and ERP systems across the network
  - Cloud capable (private or public)
  - A distributed order management (DOM) system
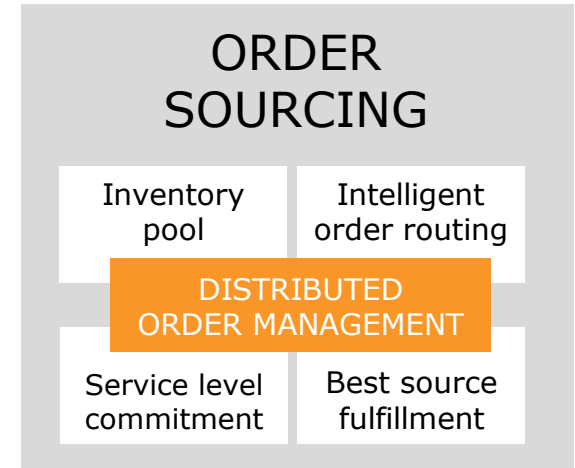
What does this mean for processing an order?

OMNICHANNEL ORDER PROCESSING

leverage inventory availability | optimize fulfillment costs | meet customer expectations

SHOPPING CART

- E-COMMERCE
- M-COMMERCE
- STORES
- CATALOGS

ORDER SOURCING

Inventory pool	Intelligent order routing
DISTRIBUTED ORDER MANAGEMENT	
Service level commitment	Best source fulfillment

- Distribution centers
- 3PL warehouses
- Stores
- Suppliers
- Returns
- Inventory in transit

FULFILLMENT EXECUTION

Real-Time Fulfillment Execution

Automated Decision Making

Pick | Pack | Route | Ship

HAPPY CUSTOMERS

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Distributed order management

- Manages the fulfillment process behind the scenes to provide a better shopping experience and delivery promise

- Orchestrates fulfillment across extended enterprise with intelligent order sourcing

- Single logical, physical view of the inventory across the extended distribution network
  - Distribution centers
  - Stores
  - Suppliers
  - In transit

- Responsible for determining delivery method and dates

- Considers merchandise in inventory or transit, and communicates information during selling process to ensure order capture

- Enables retailers to provide broader assortment of merchandise than what they physically distribute themselves

ORDER SOURCING

Inventory pool	Intelligent order routing
DISTRIBUTED ORDER MANAGEMENT	
Service level commitment	Best source fulfillment

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Omnichannel order sourcing challenges

- Need faster, cheaper order sourcing and fulfillment execution to compete
- Multichannel retailers need to manage inventory in DCs, stores, suppliers and in transit (online-only retailers have it easier)
  - Single logical, physical inventory required
    - Source inventory anywhere in network, execute order, then update inventory of record
    - Balance and accuracy across network
    - Integration engines required

- In-store fulfillment technologies emerging
  - Voice-directed picking
  - Inventory control challenges

- Inventory in transit
  - Source inventory location, plan order execution at destination (DC or store)

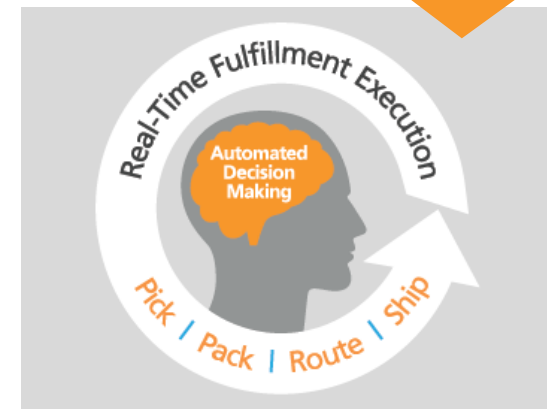**Best source fulfillment**

- Distribution centers
- 3PL warehouses
- Stores
- Suppliers
- Returns
- Inventory in transit

Real-Time Fulfillment Execution

Automated Decision Making

Pick | Pack | Route | Ship

Fulfillment execution

- ## Traditional WMS
  - Designed for manual processes
    - Inventory, purchasing and outbound order management
    - Cycles of planning, executing, monitoring and adjusting
    - Focused on sequence and exception handling
  - "Manual real-time" and design of planning and execution cycles limit ability to optimize work
  - Requires supplemental order fulfillment, labor management, slotting and warehouse control software

- ## Next generation fulfillment execution systems
  - Traditional separate WMS, WCS and order fulfillment packages not enough to meet today's requirements
  - Fulfillment execution solutions to change the game within the four walls and beyond
    - Unprecedented efficiency and accuracy
    - Higher throughput at lower costs

ERP
WMS
WCS

Fulfillment Execution Systems
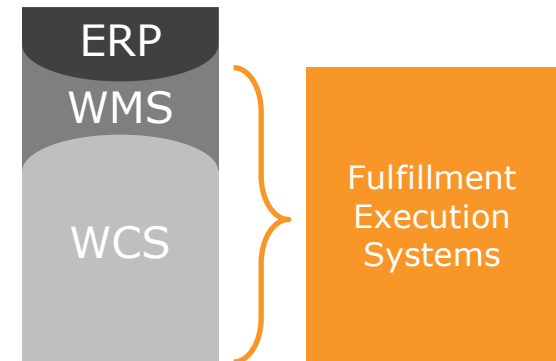
Fulfillment Execution Systems
how much labor + how much automation + real-time execution software = the highest ROI

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Real-time fulfillment execution systems
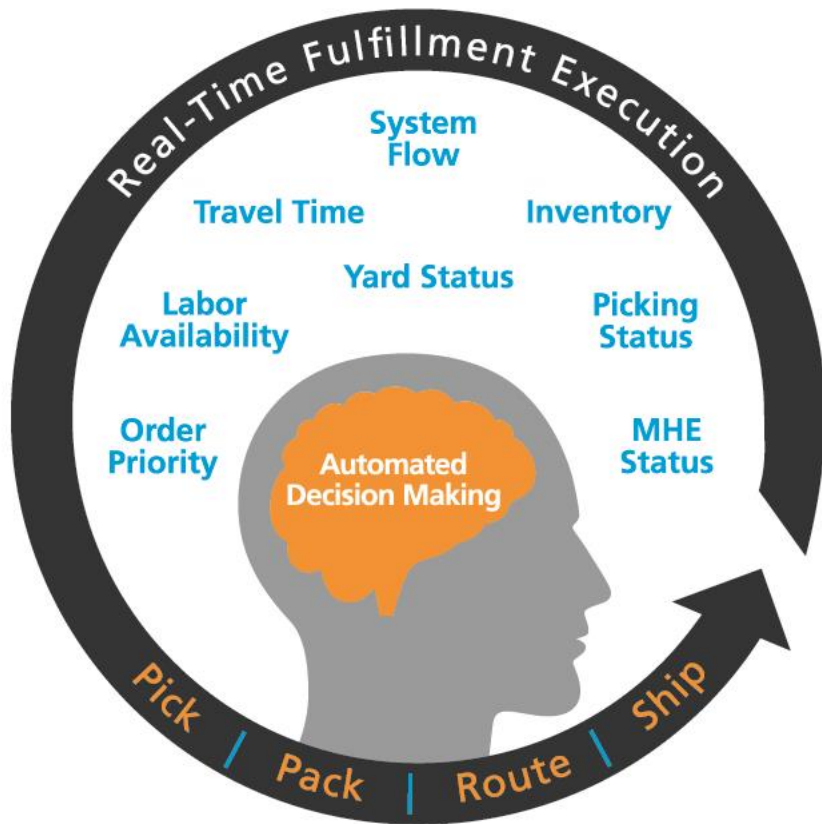
- Software acts as the operational brain, automatically adjusting workflows

- Points-based algorithms automatically determine next best task

- Constant analysis of inventory, labor, process and equipment information

- Millisecond response and MHE integration enables decisions at the speed of automation

Key takeaway: when evaluating technology to enable omnichannel order fulfillment, look for:

- A distributed order management (DOM) system
  - Smart order sourcing logic to determine best fulfillment
- Cloud capable (private or public)
- An integration tool/engine that can quickly link diverse WMS, TMS, OMS and ERP systems across the network
- A fully integrated omnichannel capable fulfillment execution system
  - One single physical inventory to satisfy all channels
  - Real-time optimization based on order priority, labor, equipment
  - Labor management / performance incentive
  - High capacity material handling equipment

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