One Size Fits All – Myth or Reality

Presented by:

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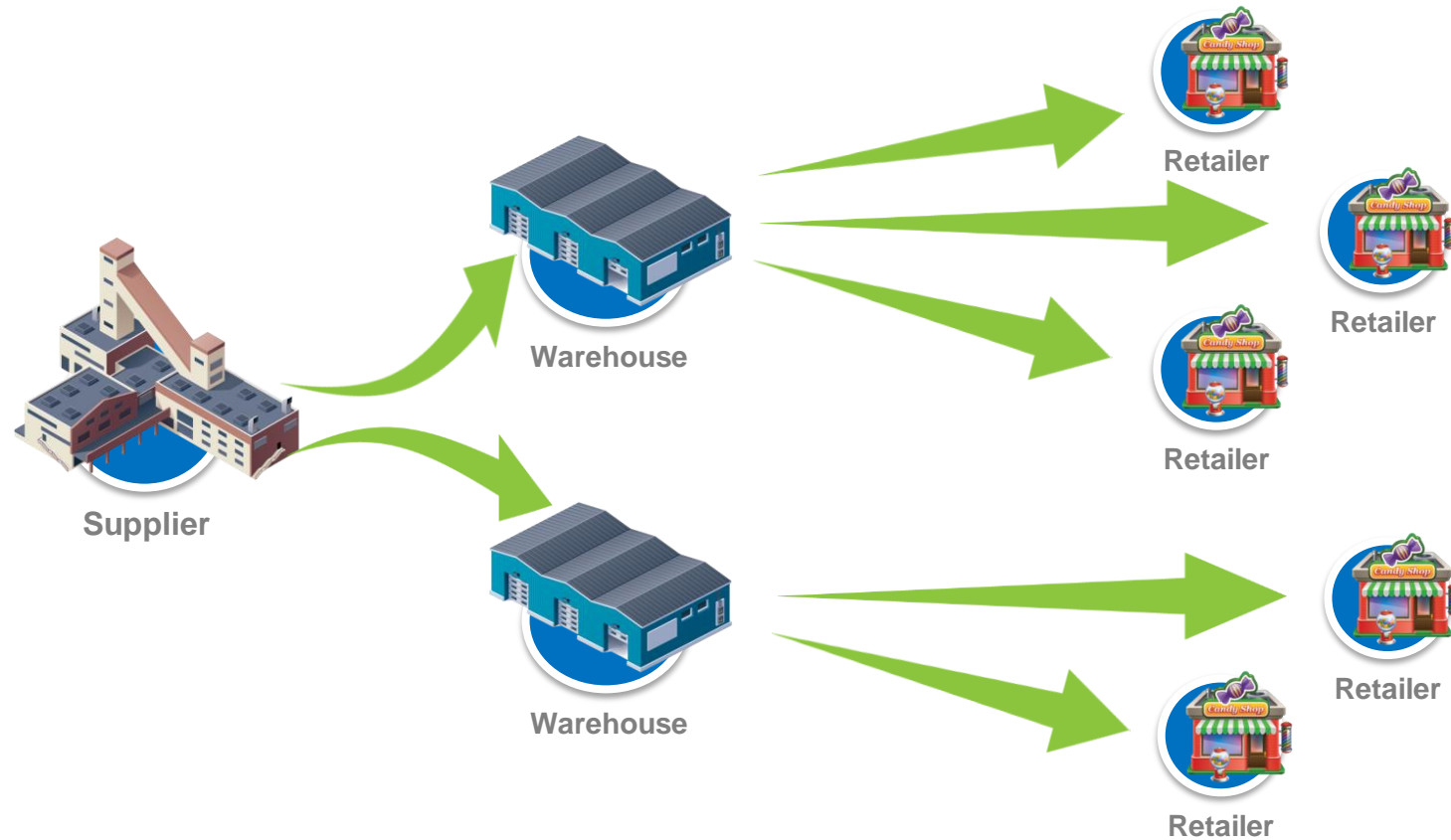**Sponsored by:**

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Scalability Myths and Reality

- What has driven the scalability need?
- How does size impact WMS choice?
- Why is it difficult for a WMS to truly scale?
- Will one size WMS fit *YOU*?
- What are your options?
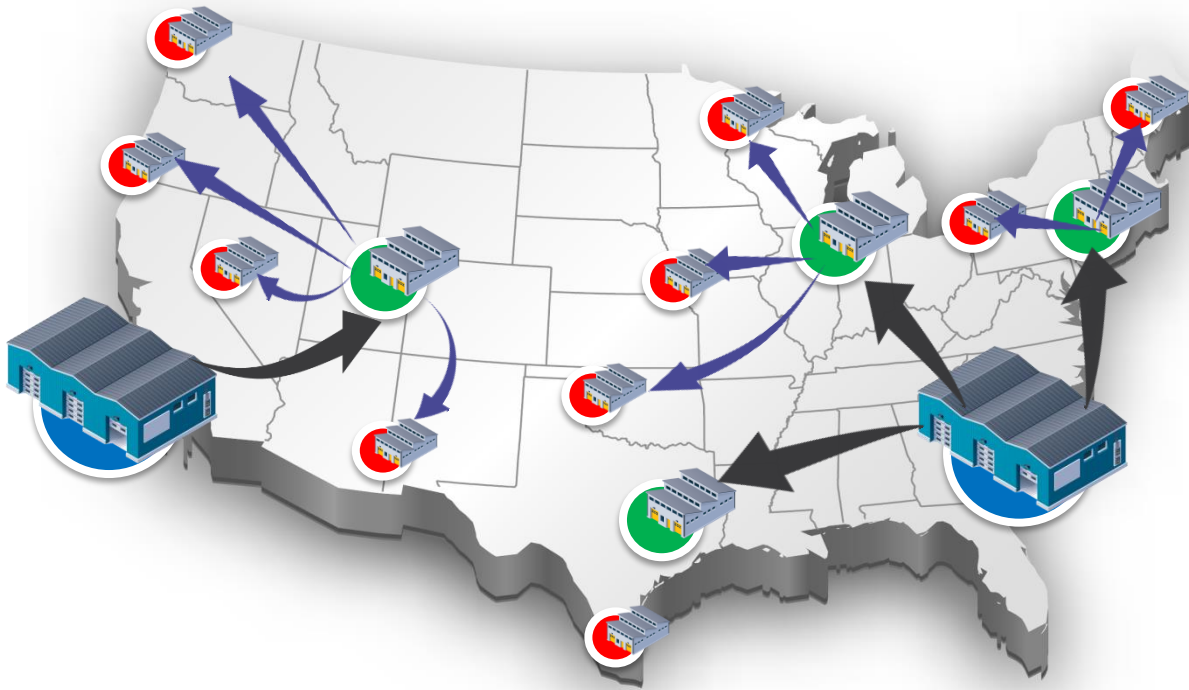- What should you look for?

Point-to-Point

Supplier

Warehouse

Warehouse

Retailer

Retailer

Retailer

Retailer

Retailer

Limited Size Variation

One Size

... Fits All

… when only one size!

Hub and Spoke

Large Size Variations

Large Fits All?

One Size….

… Sub Optimize

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Multi-Channel

Store

Store

Store

Store

Retail Warehouse

Retailer

Store

Store

Supplier

Shopper

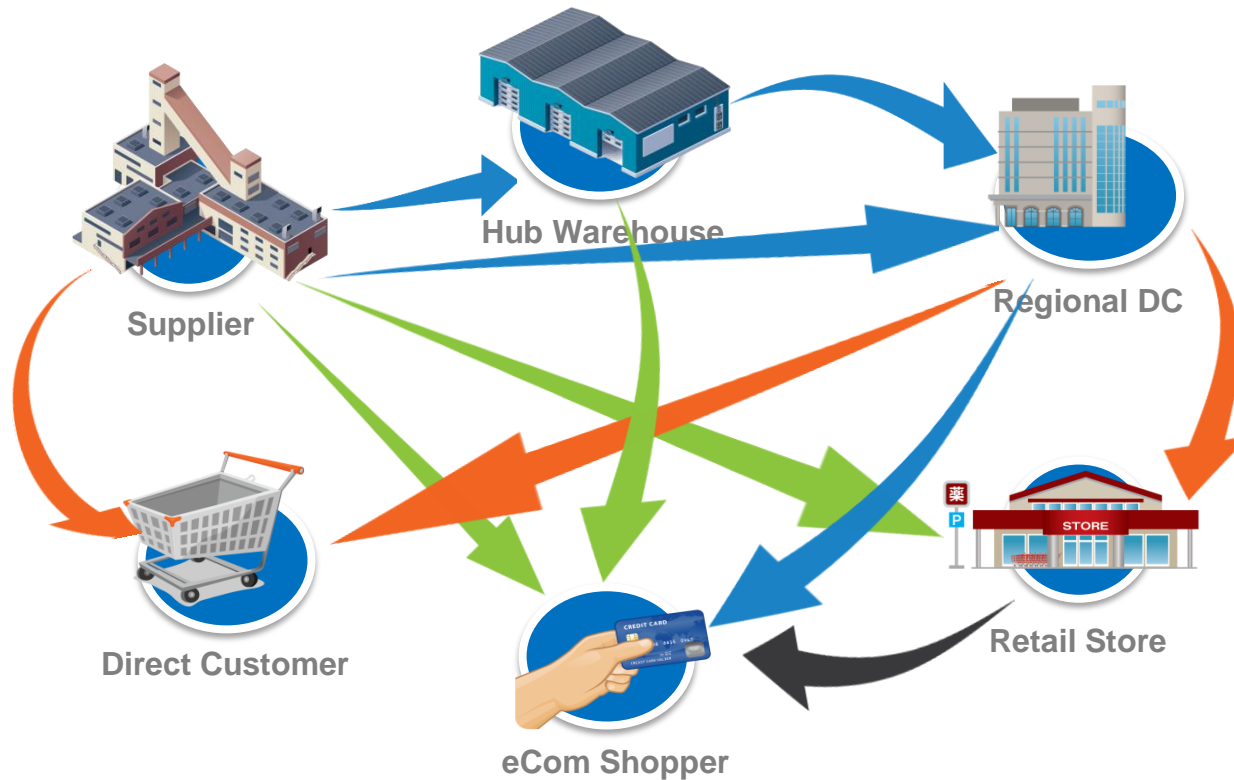eCom Warehouse

Specialization

Shopper
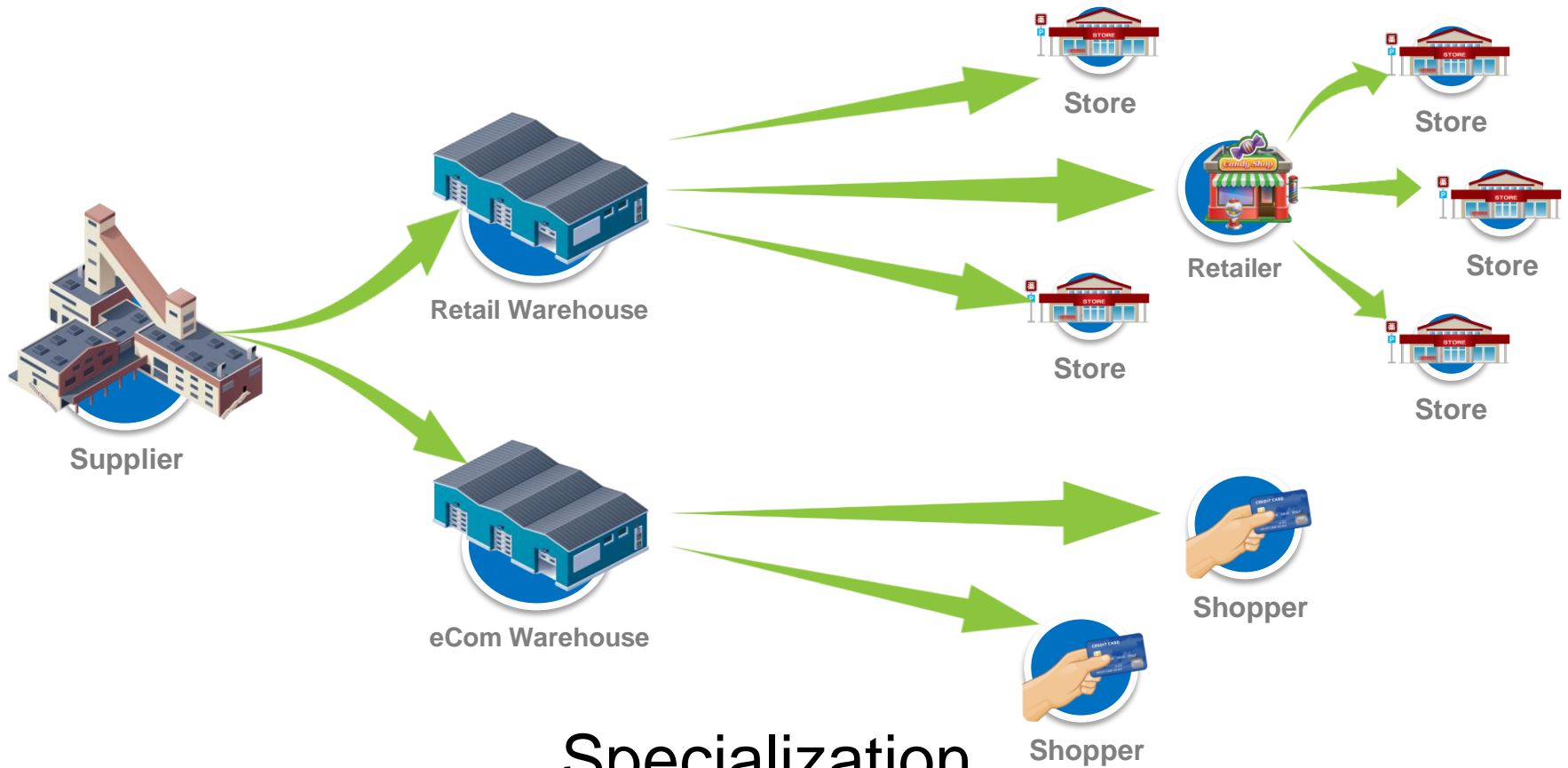
Specialized Fits All?

Within Limits…

Omni Channel

Unlimited Sizes / Complexity

Assorted Size Fits All?

Depends on the assortment…

Size Drives WMS Needs

Putaway	Manual	Directed	Optimized
Picking	Paper	Paper/RF	RF/Automated
Storage	1+ Bin/SKU	2+ Bins/SKU	3+ Bins/SKU
Order Release	None	Manual Waves	Automated Waves
Order Pick Methods	Single Order	Order/Zone	Wave/Cluster/Batch
Consolidation	None	Manual	System Directed
Replenishment	None/Manual	Manual/Directed	Directed/Automated

Size Drives WMS Needs

Cycle Counting	Manual	Directed	Interleaved
Operator Knowledge	Tribal	Moderate	Limited
Operator Tasks	All Tasks	Multiple Tasks	Specialized
Task Assignments	None / Manual	Directed / Split	Split / Interleaved
Inventory Control	Simple	Lot / Expiry / Serial	Full traceability
Dock Control	None Required	Manual / Limited	Limited / Advanced
Labor Management	None	Report to Standard	Advanced Standard
Automation	None	Limited	Highly integrated

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Available WMS Options
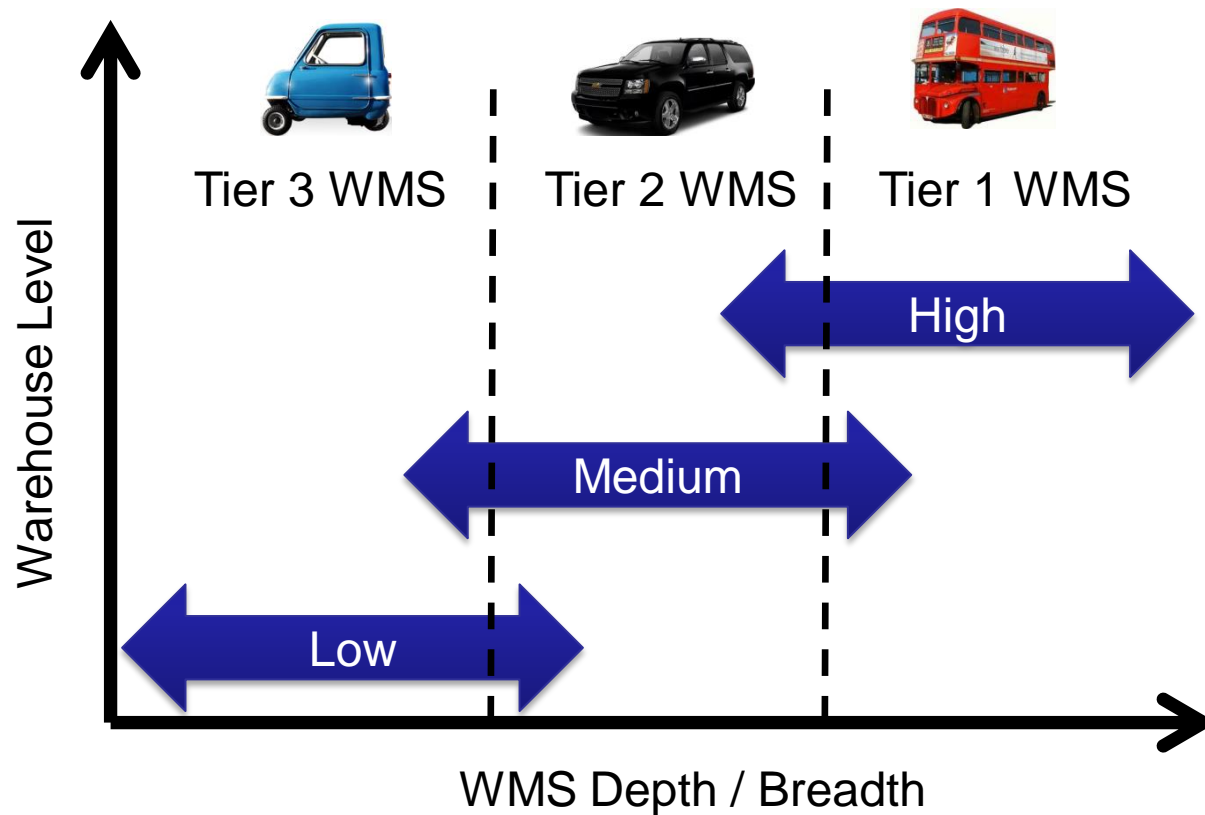
Challenges Scaling *Up*

- Technology
  - Low cost based on shared versions or old technology
  - Not built for expansion / adaption
  - Not automation friendly

- Functionality
  - Lacks task segregation / optimization features
  - Limited breadth / flexibility in core features
  - Unable to simultaneously optimize various methods

Challenges Scaling *Down*

- Technology
  - Too heavy/costly for small and micro sites
  - Required infrastructure (e.g. RF, etc)
  - Required technical/super user skills at all sites

- Functionality
  - Optimized for complexity vs. simplicity
  - Forced features (e.g. license plating, TMS steps)
  - Hard to execute in more 'manual' modes
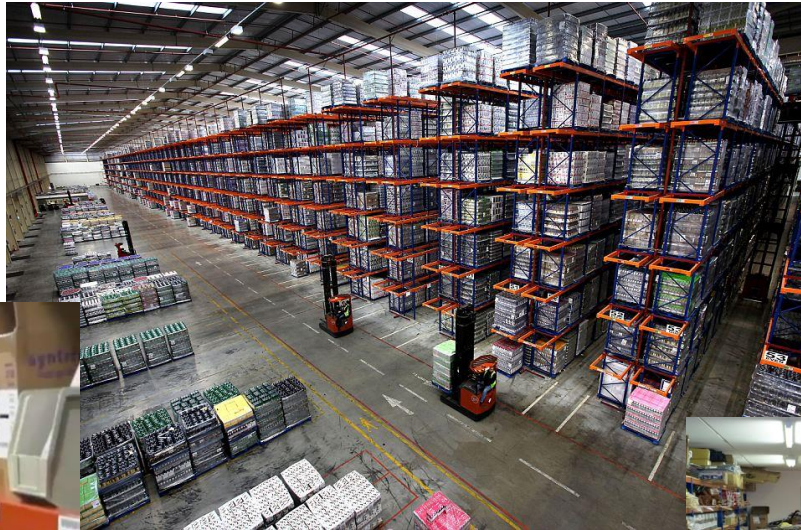
Historical Solution

Large Direct ROI Sites Only

Historical Impacts

- Rollouts
  - Efficient large sites early
  - Rollout halted based on hard savings

- Non-Implemented Sites
  - High labor work-arounds
  - Higher error rates
  - Low visibility / reporting

The New Normal

Medium

Large

Small

True Scalability

Benefit vs. Potential Obstacle

	Small	Medium	Large
Task Interleaving	✖	?	✔
Advanced automation integration	✖	?	✔
Wave release optimization	✖	✔	✔
Advanced labor standards	✖	?	✔
Sophisticated slotting analysis/control	✖	?	✔
Dynamic cycle counting	?	✔	✔
Paper based operations	✔	?	✖
Manual directed task options	✔	?	✖
Non-volumetric operations	✔	?	✖

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Will One Size Fit *You*?

One Size Easily Fits…..

	Low	Medium	High
Variations in size / operations	✔	?	✘
Rate of growth	✔	?	✘
Industry instability	✔	?	✘
Acquisition strategy	✔	?	✘
Government regulatory requirements	✔	?	✘
Number of distribution channels	✔	?	✘
High to low season volume changes	✔	?	✘
Disruptive competition	✔	?	✘
SKU variability (lot, serial, etc)	✔	?	✘

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Strategies to Start Wisely

- Build future risk / dynamics matrix
    - Assess level of market dynamics
    - Identify potential for regulatory changes
    - Consider business strategy – stable vs. growth
    - Project evolving channels

- Assign WMS impact risk – low, med, high
    - Size / complexity variations
   - Technology advancement needs

Strategies to Start Wisely

- Build ROI on overall savings
  - Hard savings at largest sites
  - Indirect / soft savings at very small sites

- Plan rollout strategy
  - Rollout strategy to gain benefits early
  - Complete rollout to eliminate duplicate costs
  - Continuous improvement process

Which WMS Strategy Fits You?

1. Single size with limited variability

2. Major pain only (partial rollout)

3. Medium / long term extended scalability

Best Fit, Upper Scale
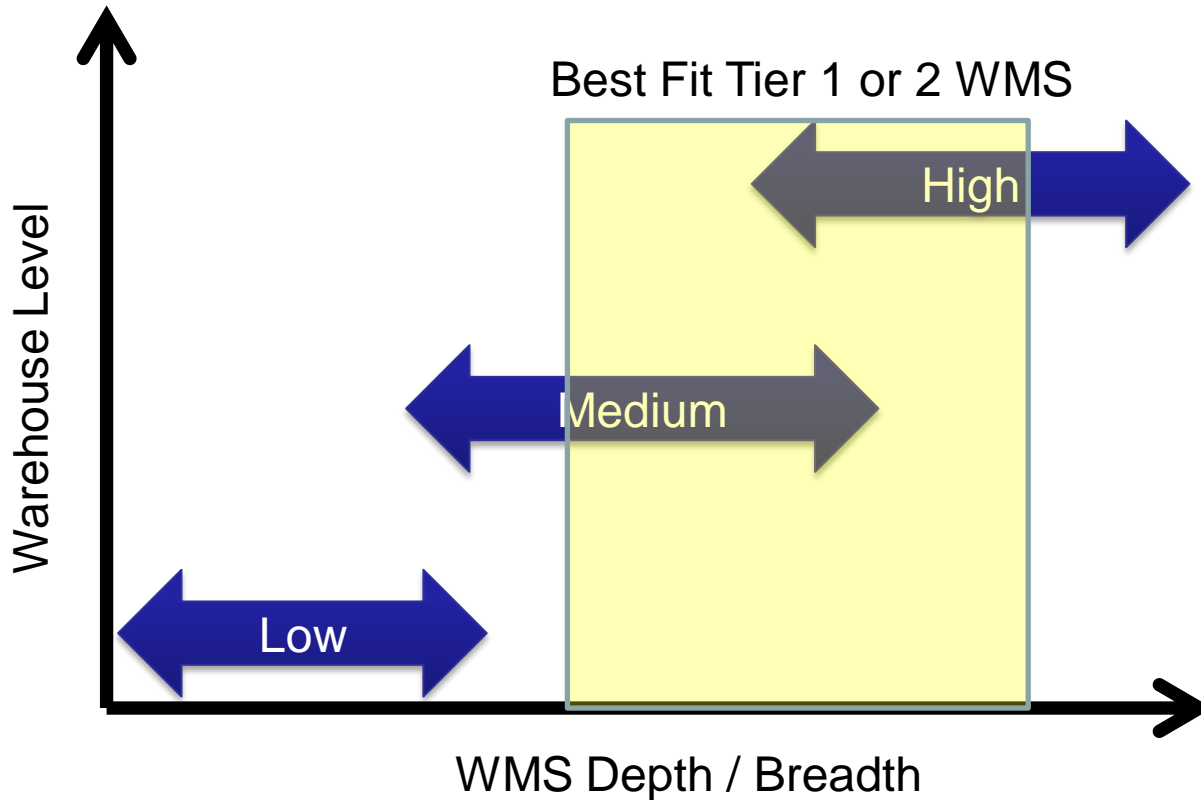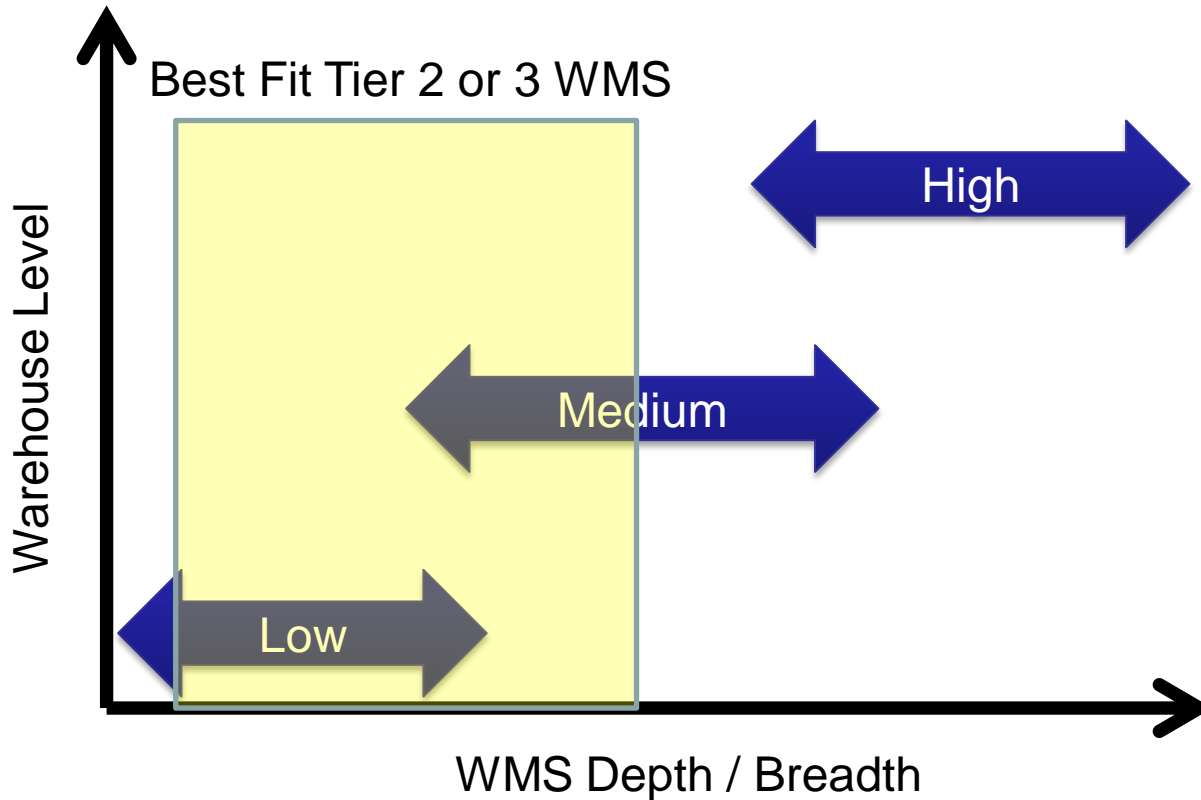
"Biggest and Best"

Potential Impact – Limited Rollout

- Complexity makes small sites impractical

Why?

- Too many operational steps
- Advanced super-user knowledge
- Costly – equipment / implementation / operation

Best Fit, Lower Scale

Best Fit Tier 2 or 3 WMS

Warehouse Level

High

Medium

Low

WMS Depth / Breadth

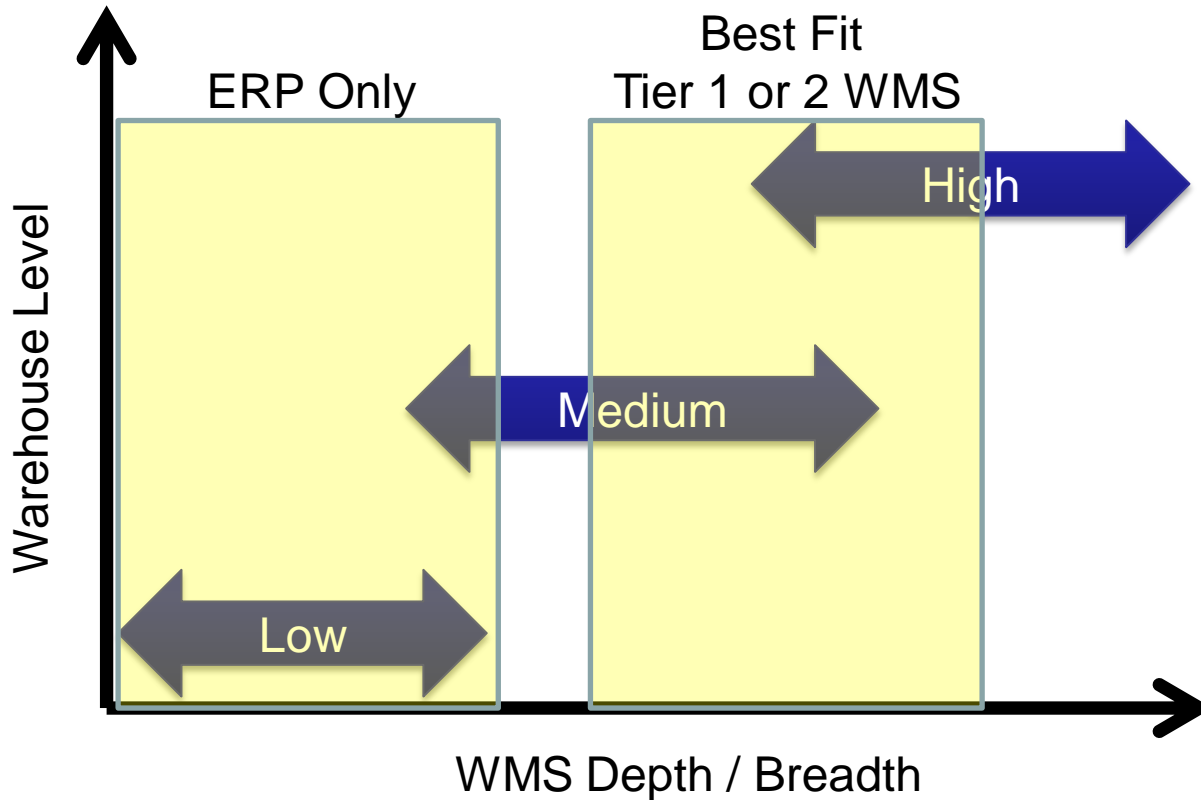MODEX 2014

"Adequate and Low Cost"

Potential Impact – Limited Useful Life

- Business changes alter original criteria
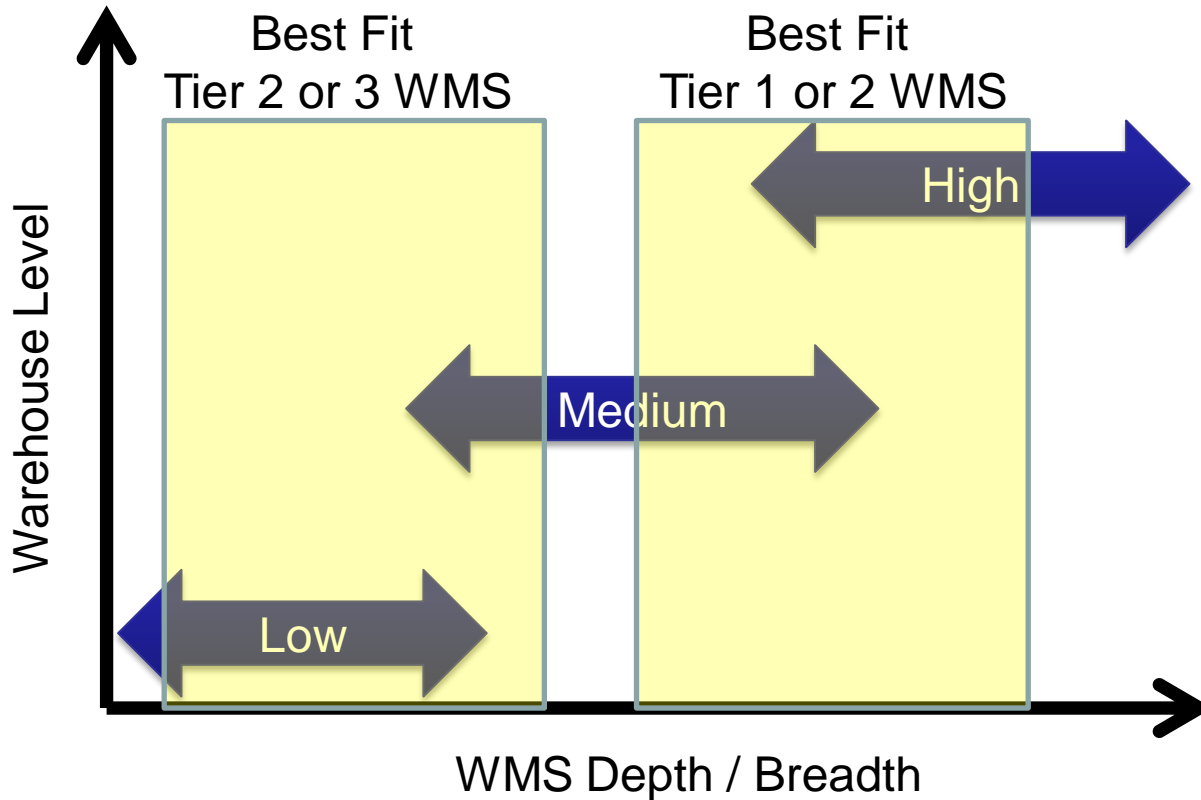- Risk of early replacement

Why?

- Industry demands require additional capabilities
- Hitting the wall as volume increases

Limited Rollout, Single WMS

Full Rollout, Dual WMS
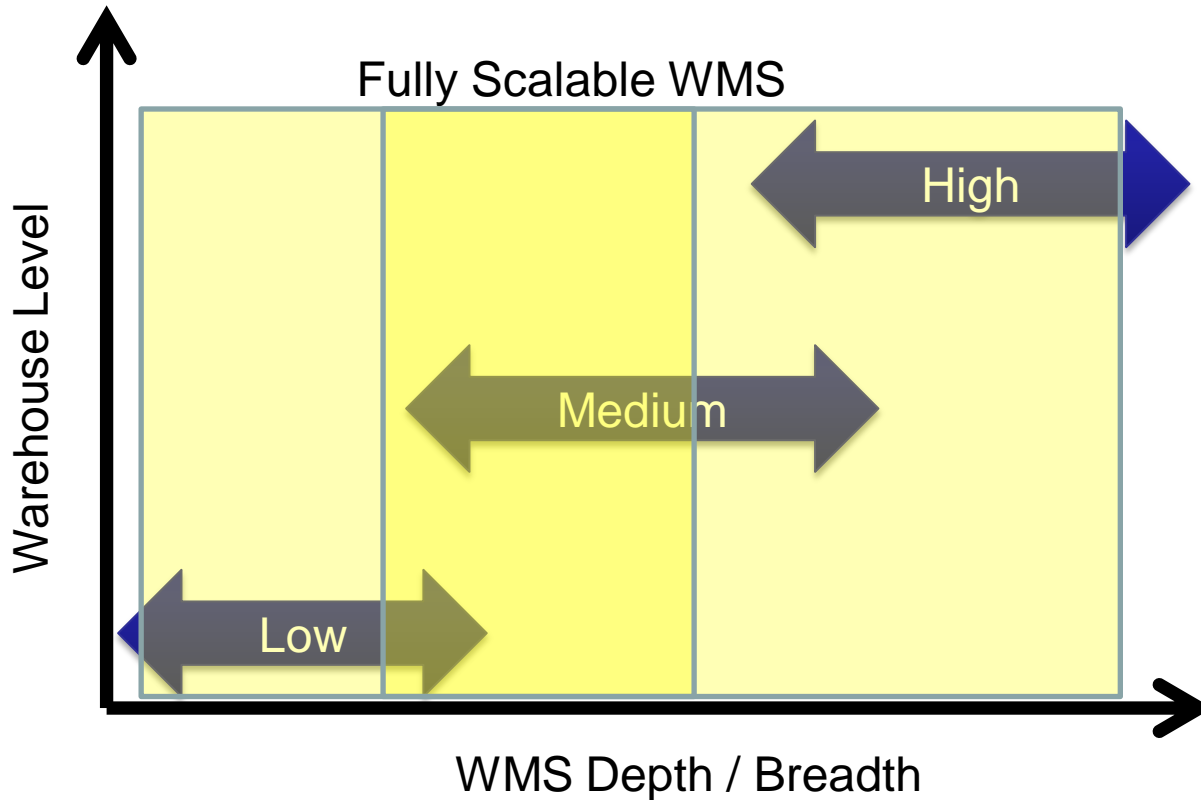
"Multiple Solutions"

Potential Impact – Limited Savings / High Cost

- Increased IT cost / expertise

- Reduced sharing of operational learnings

Why?

- Multiple technologies, differing features

- Difficulty in consolidated visibility / reporting

Scalable, Future Expandable

Fully Scalable WMS

Warehouse Level

High

Medium

Low

WMS Depth / Breadth

"Fully Scalable Solution"

Potential Benefit – Longer life, Increased ROI

- Standardization provides additional savings
- Eliminates future replacement costs

Why?

- Scalable / flexible as business changes
- Avoids cost of "shelf-ware" and future-only features

Finding a Scalable Solution

Bidirectional Scaling Factors

- Latest technology
  - Extreme focus on user experience – adaptable, visual
  - Single point of user / workflow personalization
  - Personalization without technical knowledge
  - Easy/flexible integration layer – ERP, automation
  - Flexible for on-premise, hosted or cloud operations
  - SOA architecture
  - Zero footprint user interface
  - Mashable WMS, TMS and ERP info on any screen

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Bidirectional Scaling Factors

- Large site features – *when needed*
  - Flexible, advanced picking methods and technologies
  - Containerization – pick to final container
  - Task interleaving
  - Embedded TMS
  - Sophisticated volumetrics
  - Advanced labor management
  - Extended SKU characteristics (lot, expiry, serial)
  - Automation friendly

Bidirectional Scaling Factors

- Small site features – *when needed*
  - Paper only option
  - Support for manually directed operations
  - Minimal setup / start-up requirements
  - Fast training for new operators
  - Easy / fast to rollout new sites
  - Ability to evolve to Tier 2 and Tier 1 operations

Final Due Diligence

- Final Checklist
    - Ensure completeness of vendor's future vision
    - Adaptable trumps "five more features"
    - Confirm vendor's partnering mentality
    - Strategy in place for feature use "as needed"
    - "Shelf-ware" only provides emotional value
    - Validate full range of scalability with references

One-Size-Fits-All is Possible

Assess *your* long term variability / risks.

Find solutions with *bidirectional* scalability.

Plan and execute to the *end.*

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