

Lessons Learned from the Front Lines



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UW E-Business Consortium

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Dilbert's Approach to RFID



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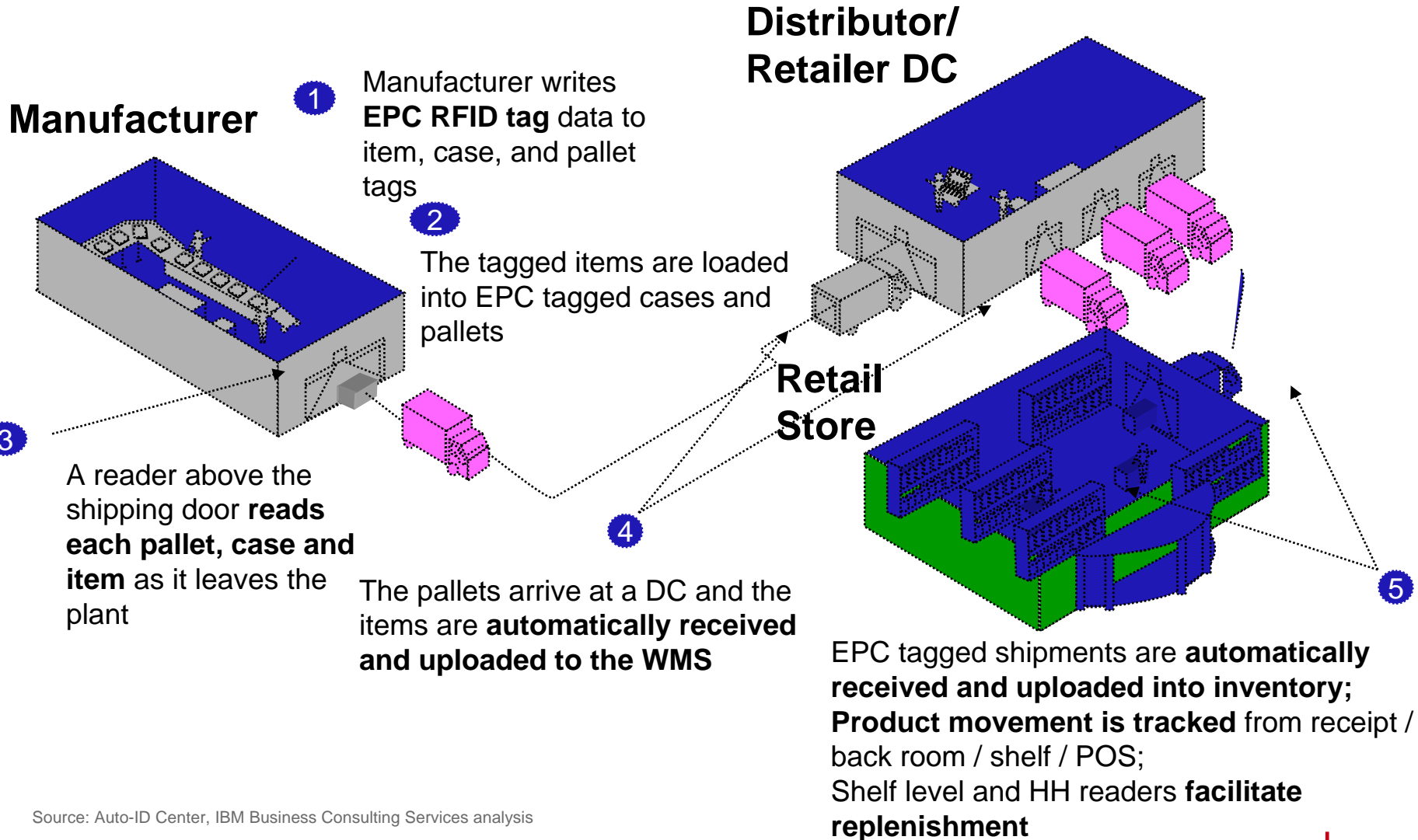
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- **Lesson learned from the front lines**
 - The RFID/EPC Enabled Supply Chain Vision
 - Value to Retailer
 - Value to Supplier
 - What successful implementations have in common
 - Typical EPC solution approaches

The RFID/EPC Enabled Supply Chain Vision



Source: Auto-ID Center, IBM Business Consulting Services analysis

We're not there yet, but....

**If the facts don't fit the
theory, change the facts.**

--Albert Einstein

Retail Visibility: The Origin of the RFID/EPC Movement



Millions of US Dollars

Company	Revenue	Cost of Goods	Net Income	1% Reduction in CoG	Change in Net Income
Wal-Mart	\$258,600	\$199,000	\$14,000	\$1,990	14%
Metro AG	\$60,000	\$47,000	\$900	\$470	52%
Target	\$48,000	\$32,600	\$2,900	\$326	11%
Tesco	\$40,000	\$37,500	\$2,000	\$375	19%
US DoD		\$380,000		\$3,800	
Total		\$696,100		\$6,961	

RFID / EPC Value to Suppliers

Suppliers should realize savings in several key areas

Benefit	Timescale	Average Size of Benefit
Reduced Shrink	1-3 years	0.25 – 0.75% of sales
Reduced Out of Stocks	2-7 years	0.5 – 1.5% sales uplift
Better Product Management	2-7 years	Sales uplift of ~1%
Reduced Inventory Investment	2-5 years	10 – 20%
Reduced Labor Expenses	2-5 years	5 – 15%

Few things are harder to put up with than the annoyance of a good example.

-- Mark Twain

Successful Implementation Characteristics

- **Multi-functional RFID team engaged**
- **Identify benefit unique to your company**
- **Do more than comply – build in scalability**
- **Budget for Training, Consulting, Integration, POC, Pilot**

Point Of Tagging Options

Picking/Slap and Ship

- Process
 - Tag cases during picking
 - Tag cases and pallets destined for RFID customers post-pick
- Pros/Cons
 - Incremental labor cost to manually apply tags and risk of potential service level degradation
 - Requires de-palletization and tagging/re-palletization of all pallets shipped to RFID-enabled customers

Maintain Separate Inventories

- Process
 - Tag RFID-relevant SKUs at manufacturing
 - Create and manage additional SKUs for RFID-tagged inventory
- Pros/Cons
 - No impact on DC operations, but requires additional storage space for safety stock and systems implications related to proliferation of SKUs

Tag All At Manufacturing

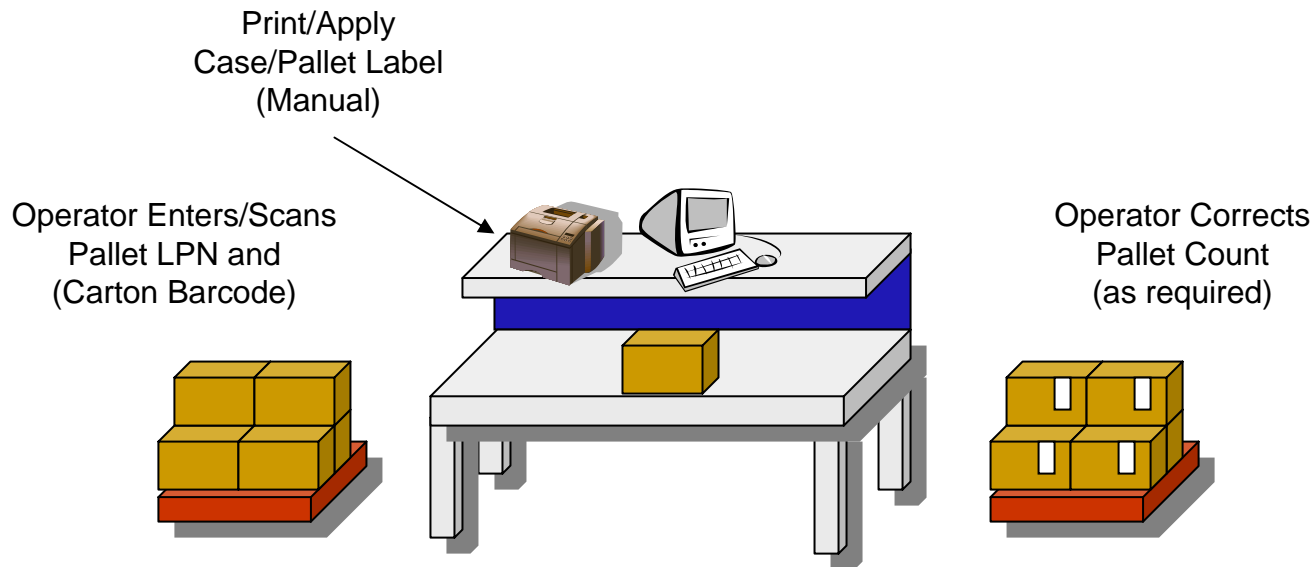
- Process
 - Tag all product on all production lines
 - All product shipped from a DC will be RFID tagged, regardless of the retailer adoption of RFID technology
- Pros/Cons
 - No impact on DC operations and no additional storage space requirements

Typical EPC Solution Approaches

- **Market Approaches**
 - **Level 1 Manual**
 - **Level 2 Manual with case verification**
 - **Level 3 Manual with case & pallet verification**
 - **Level 4 Semi-automated**
 - **Level 5 Fully automated**

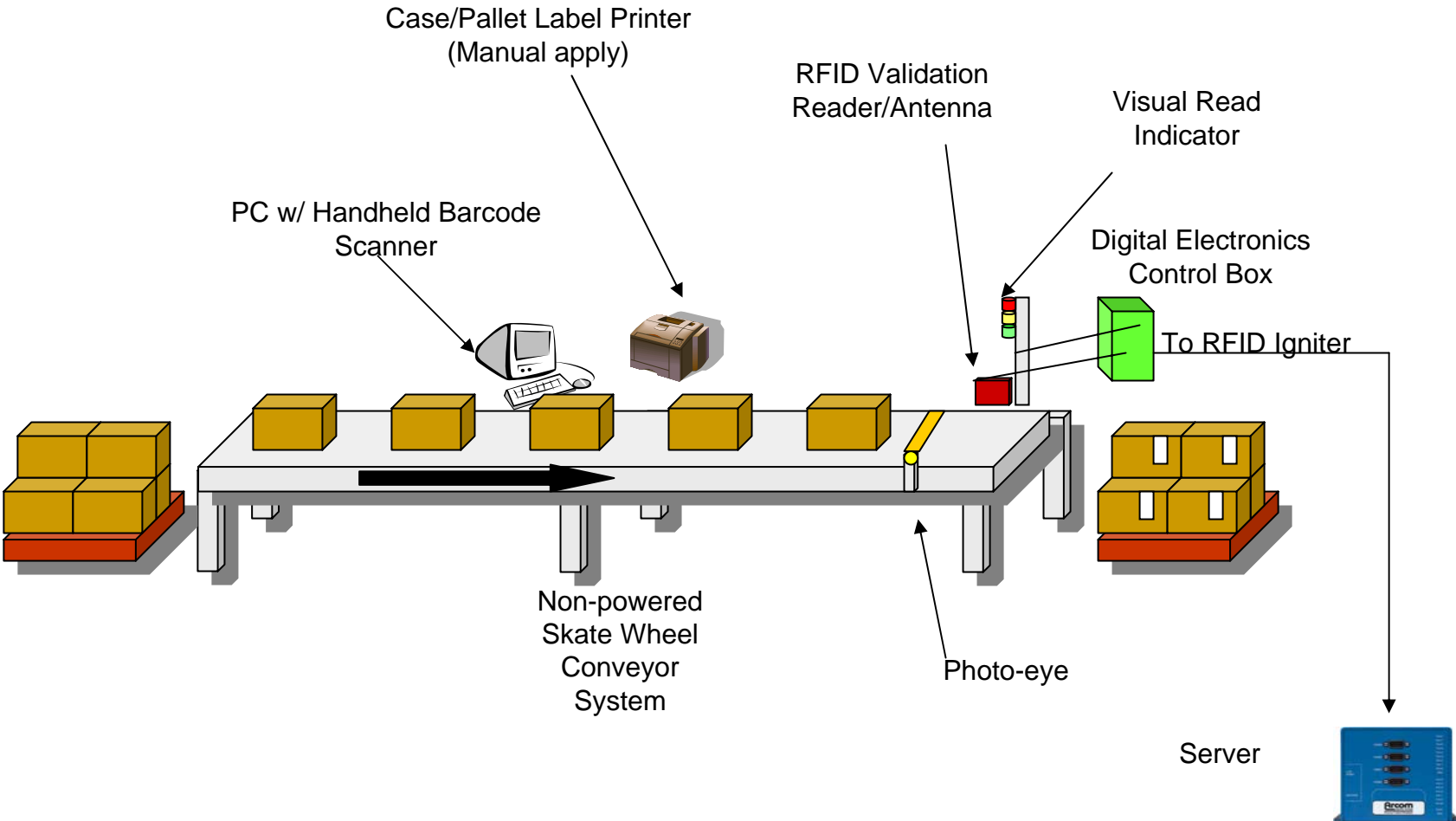
Level 1- Manual Print and Apply without Verification

- **Low level “slap & ship”**

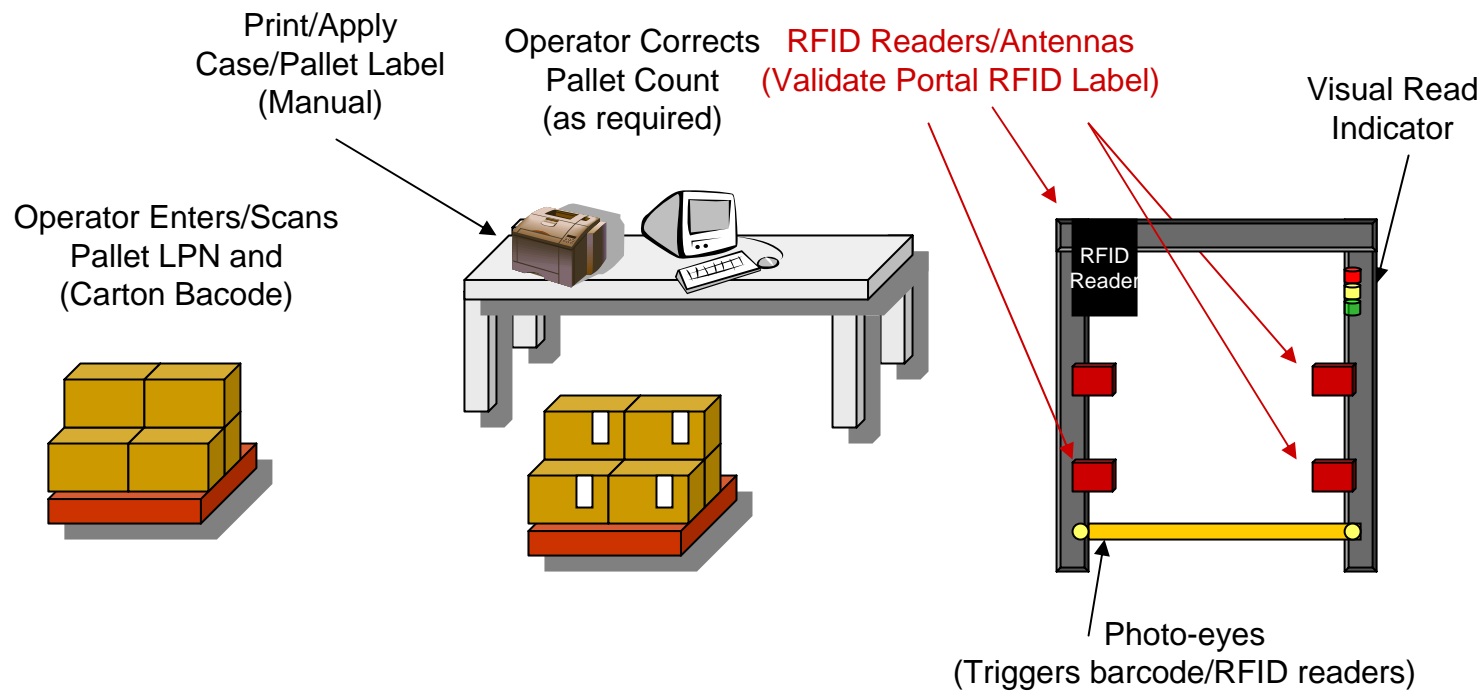


Work area table roughly 3 to 5 feet

Level 2- Manual Print and Apply with conveyor Case Verification



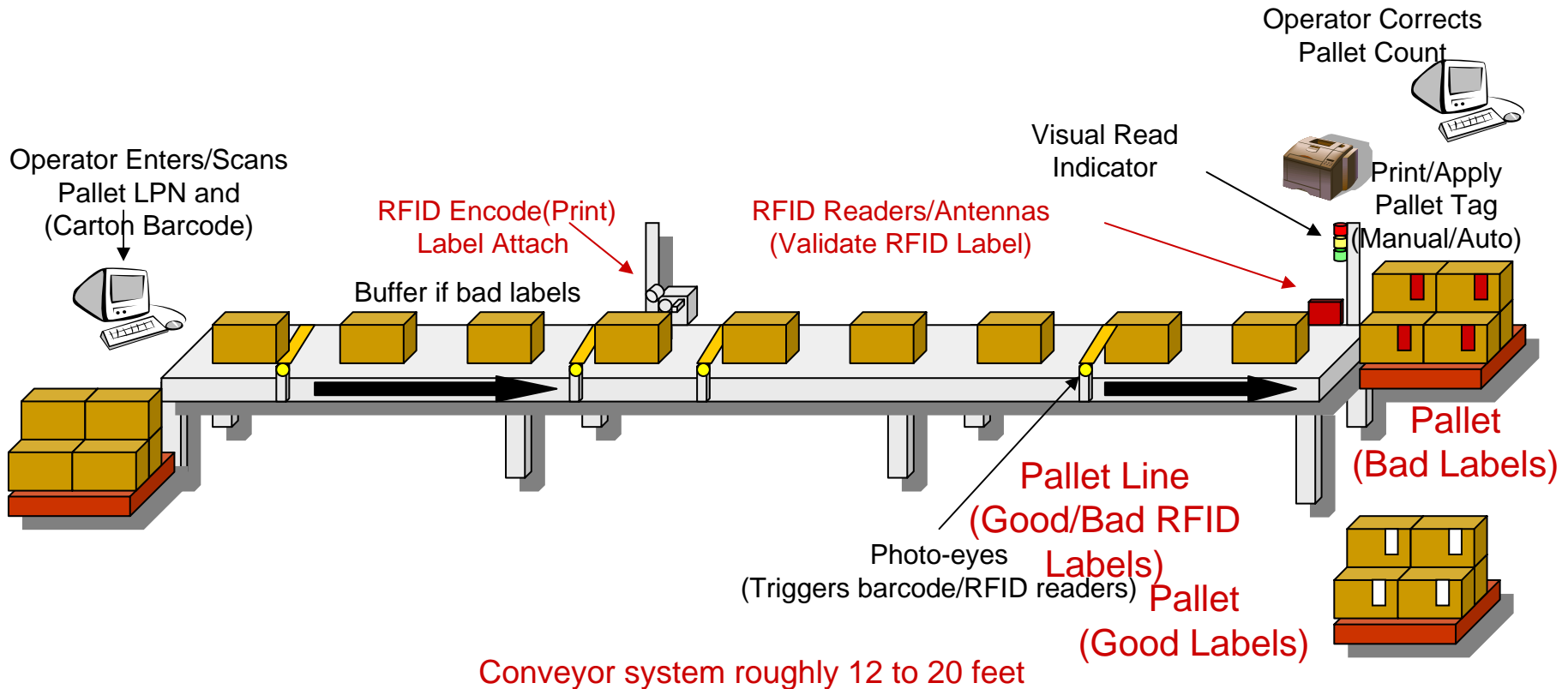
Level 3- Manual Print and Apply with Portal-based Case/Pallet Verification



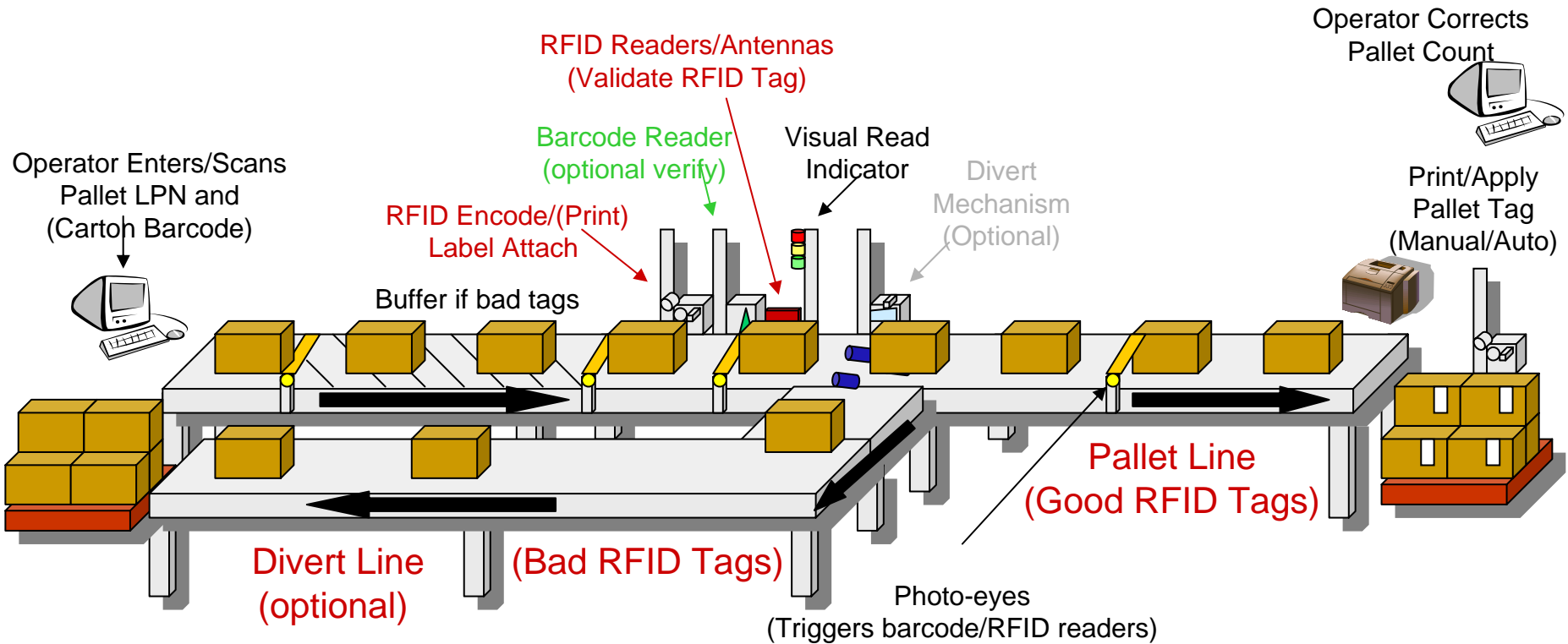
Work area table roughly 3 to 5 feet

Level 4 - Semi-Automated Solution

- Provides increased post pick throughput with basic automation



Level 5 – Automated In-Line Solution



Conveyor system roughly 30 to 40 feet

The PC Weenies.



"I'm sorry, sir. We still haven't been able to find your box of RFID tags."



Q&A

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