



Kanban

(A Japanese Productivity tool)

A Brief Historical Perspective

Larry Cooke, April 2011

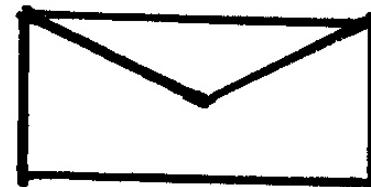
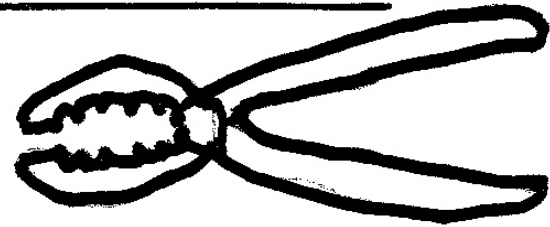
かんばん

Quick Trip Through Time

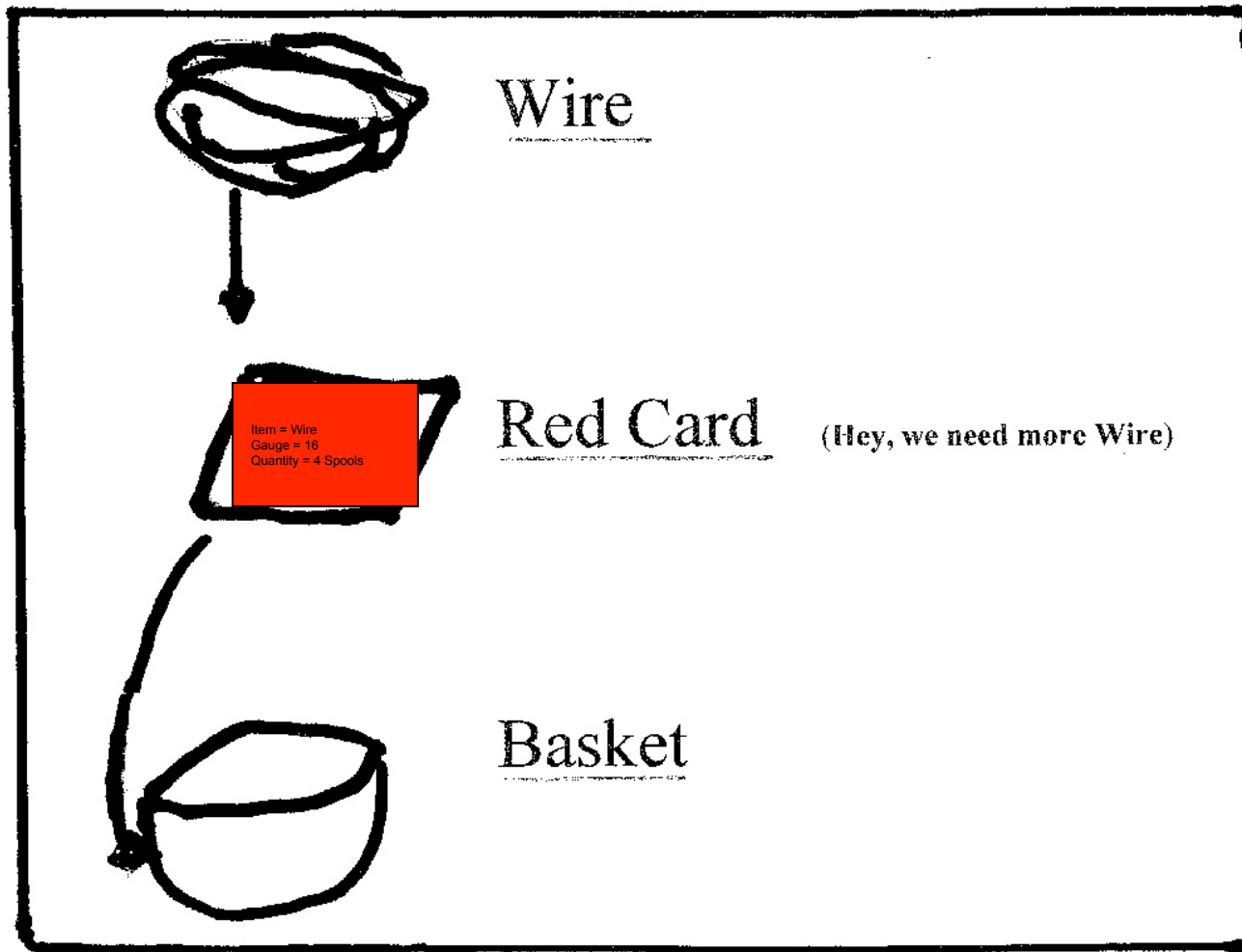
When	Who/What	Why
1776	Adam Smith's Wealth of Nations	Automation
1852	Admiral Perry Opens Japan	Globalization
1950-90's	Toyota Production System	TPS

Adam Smith's Pin Factory (1776)

1. Draw the Wire
2. Cut the Wire
3. Pound the Head
4. Sharpen the Point
5. Package the Product

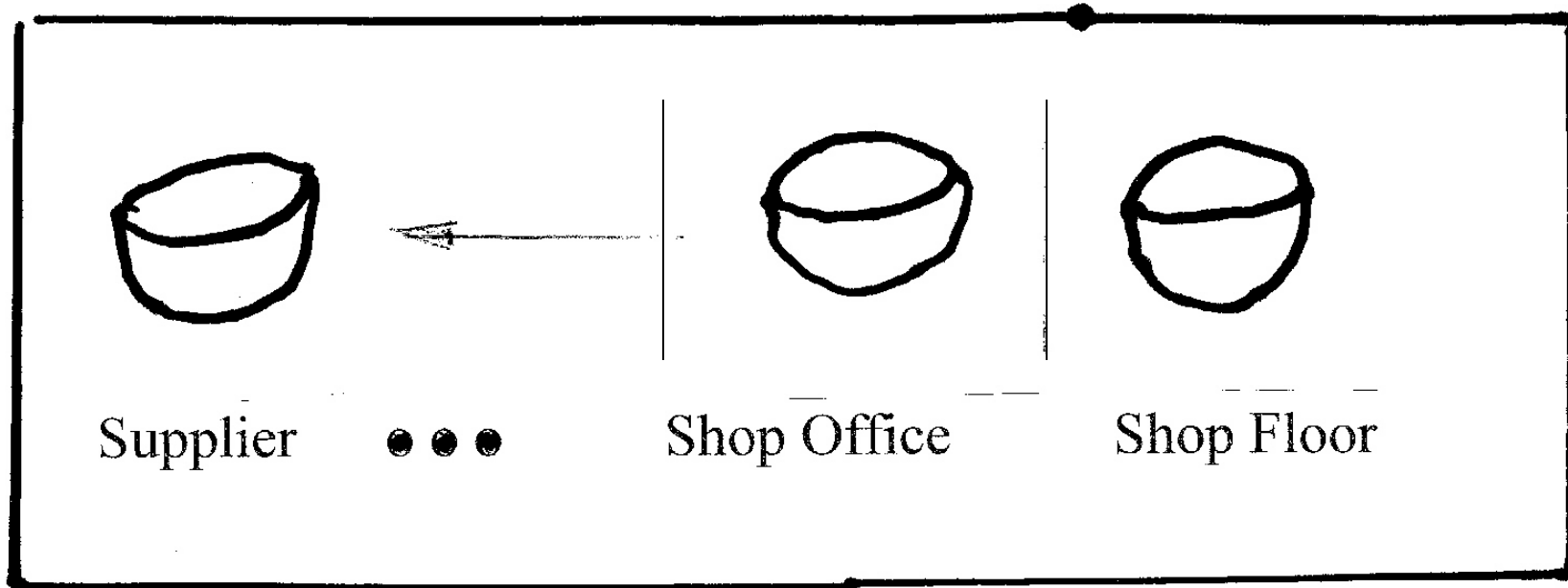


Kanban Basket of Product



Kanban Production Cycle

Three Baskets:

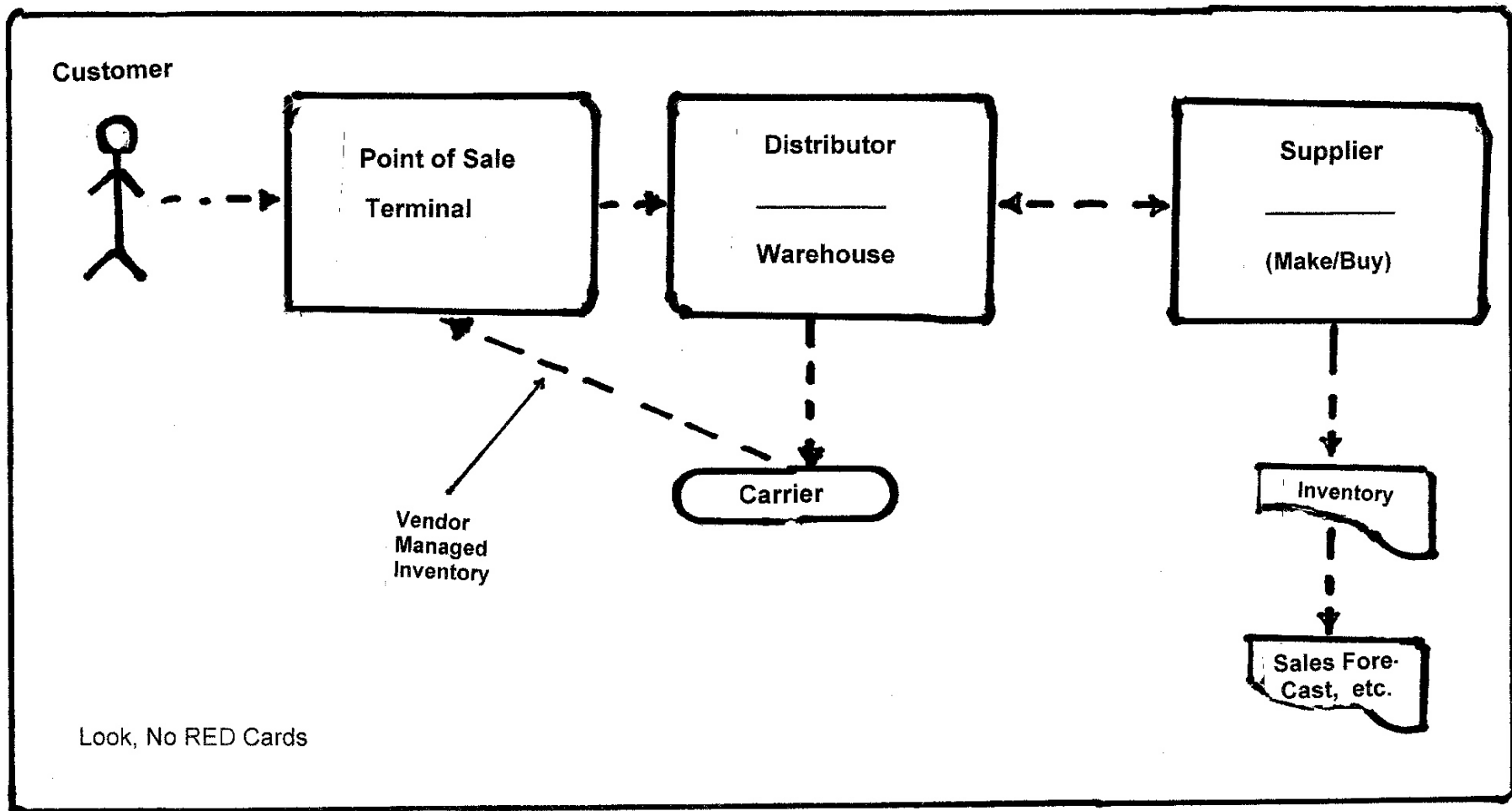


Modern Kanban – Point of Sale

- Sell tube of *Colgate* Toothpaste (Giant) at WalMart, Pawtucket RI store
 - Sale Registers at Distributor (Just-in-Time)
 - Economic Lot Size Determined
 - Distributor Restocks from Warehouse (RFID)
 - Vendor Managed Inventory (VMI) Delivers
- Sales, Inventory Cost Adjusted
No Red Cards needed!

Supply Chain Schematic

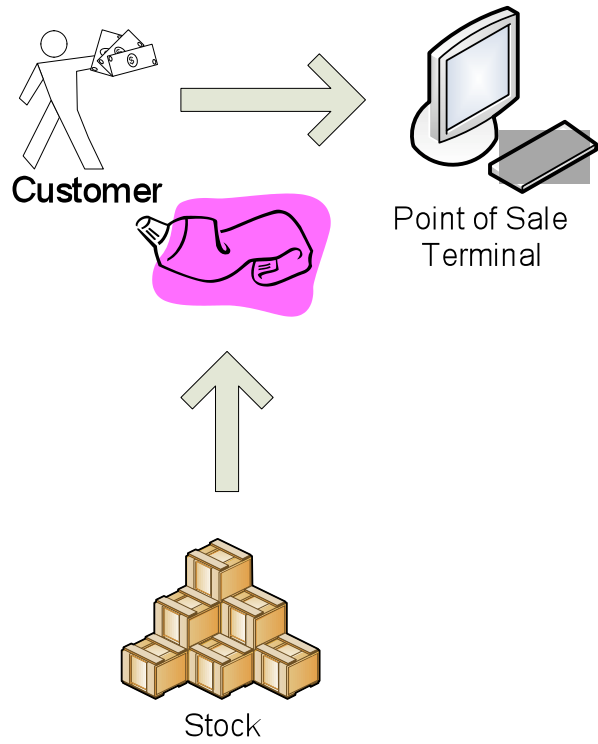
Customer . Store . Carrier . Distributor / Warehouse . Supplier



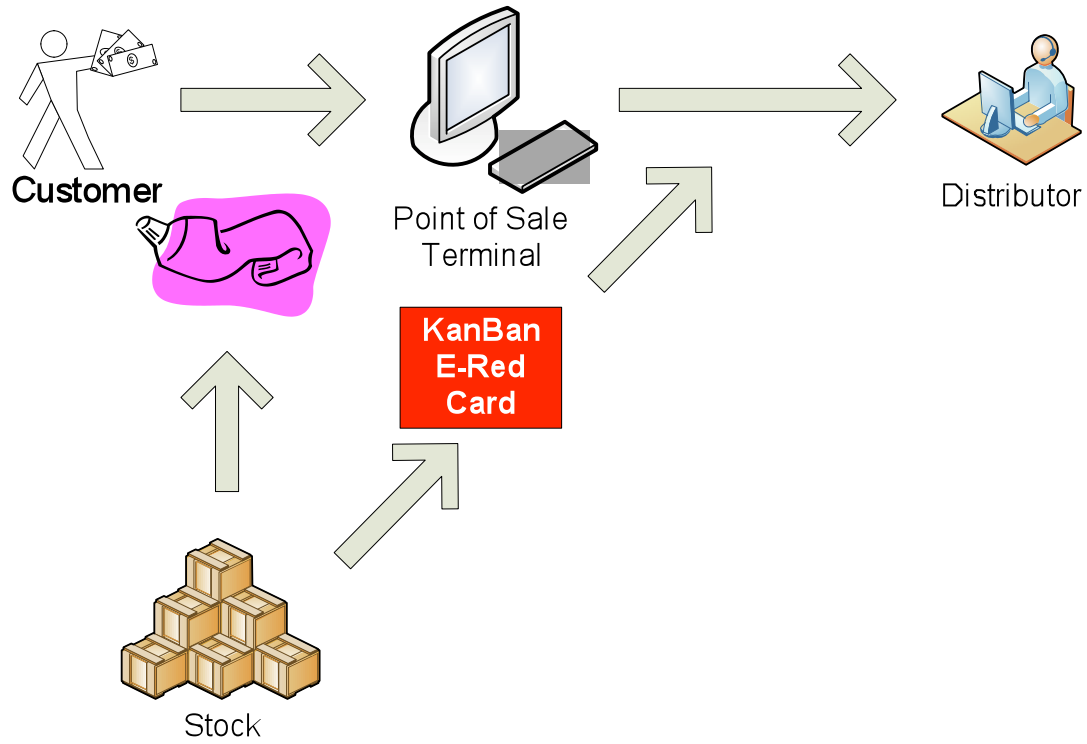
Broad Scope and Summary

- **Kanban applies to Services as well**
 - ATM, Point of Sale
 - Electronic Medical Records
- **Customer activated Internet purchases**
- **Kanban, in modern form, permeates many business products and services**

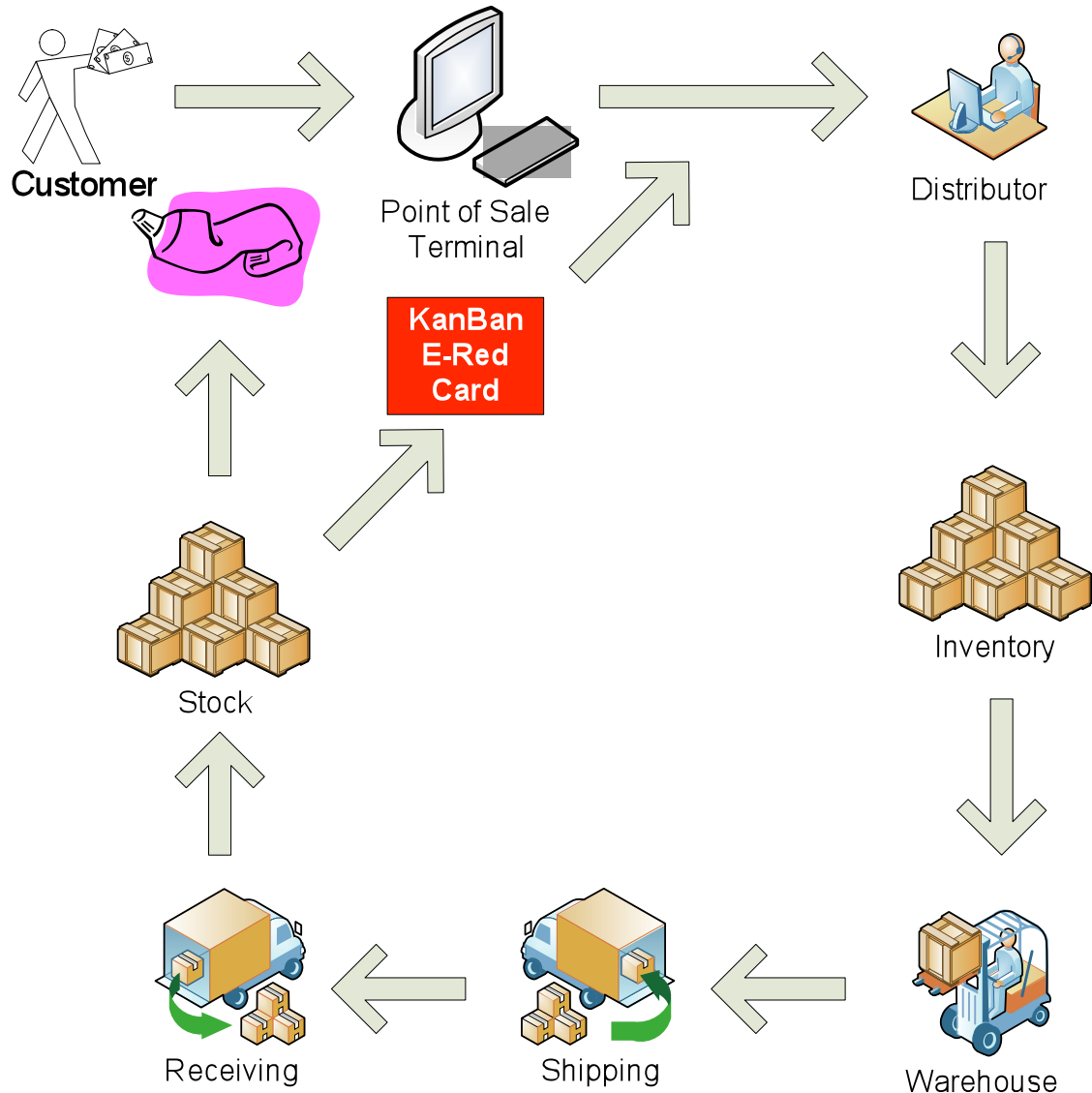
Supply Chain



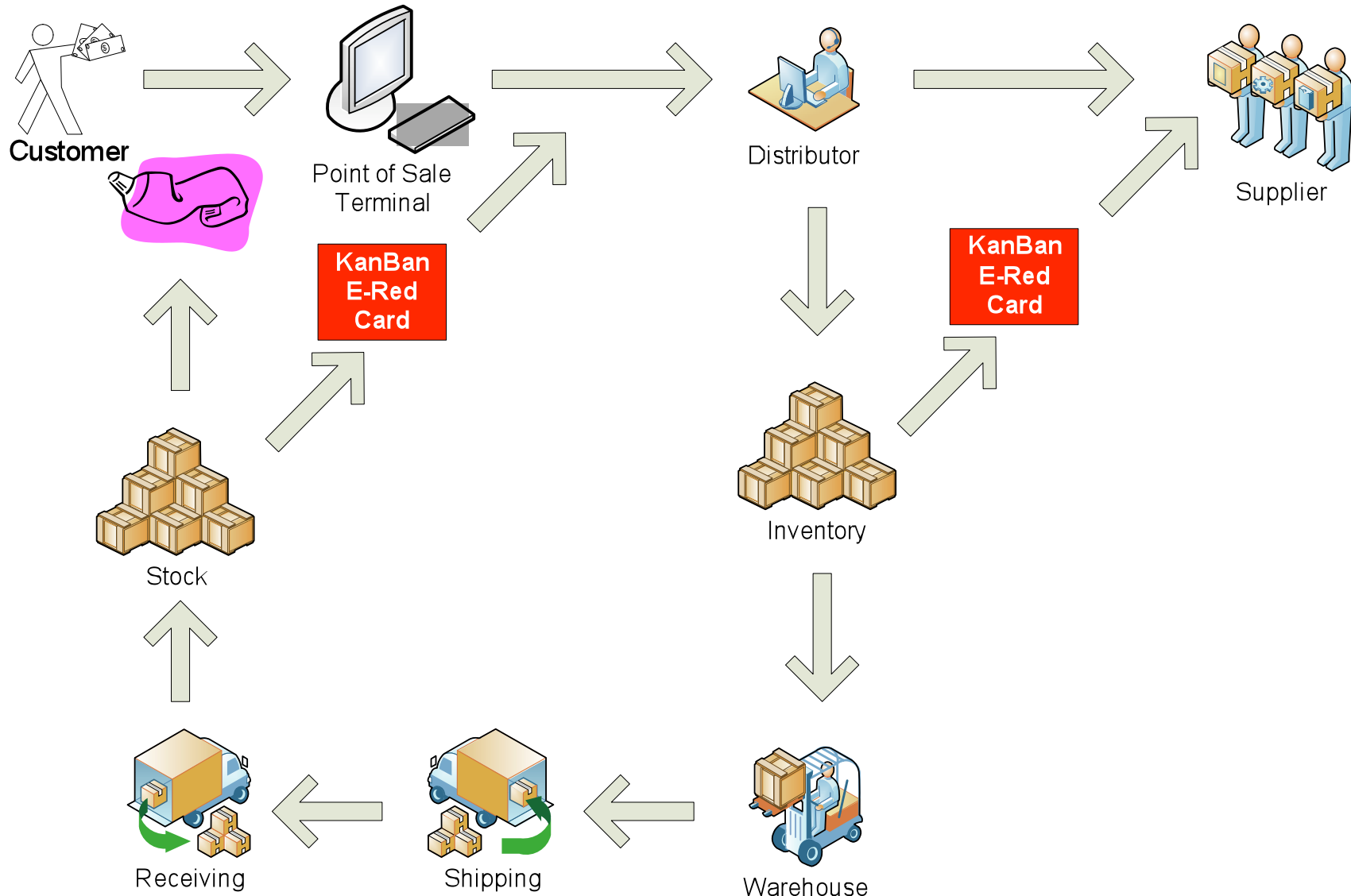
Supply Chain



Supply Chain



Supply Chain



Supply Chain

