

# E-Logistics

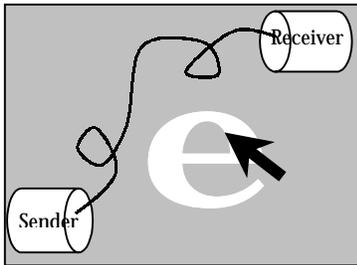
“Once You Get Past The Web Site E-Commerce Is All Logistics”

What’s all the fuss about e-logistics? The Internet and e-commerce are changing everything.

E-commerce is redefining the supply chain, how we do business and even how we live our lives.

A number of e-tailers bet their fortunes this past Christmas selling season on their e-fulfillment capabilities. Some won, some lost.

In the beginning of e-commerce, e-logistics was just an afterthought.



With expectations rising, merchandise customization, real time customer services, value added services, personalization, gift wrapping,

assembly and other individualization, e-logistics has become one of the most critical aspects of an e-tailers success formula.

Five fundamental e-commerce success factors are:

- Development of an attractive and functional web site
- Solving the each pick pack fulfillment issue
- Tracking forecast and replenish inventories
- Managing the reverse logistics function, and
- Cash management.

Miss one and you’re history.

Just a few months ago you were hard pressed to find anyone who even understood e-commerce fulfillment, let alone e-logistics. Today while e-commerce expertise is still limited and the demand is high, consultants and third party providers are becoming “on-the-job” experts through a process of baptism by fire.

When you run a traditional catalog operation, you have a good idea of who you’re sending your catalog to, their geographic and demographic profile, their past ordering history, preferences, secondary distribution, and therefore, an anticipated order rate that can be transferred to size, style, color and the resulting forecast and forecast error rates. When you make that same promotional offer today on the Internet, you don’t have that same control, history, or understanding. This is partially because of the infancy of your e-commerce experience and limited history, but is probably due more to the dynamic explosive growth of the Internet. You may target 50 orders a day and get 1,000 on the first day.

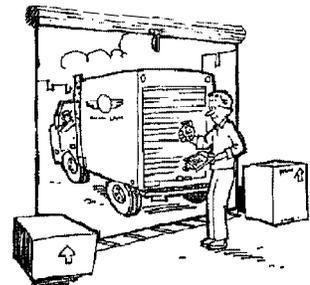
## INTERNET GROWTH

The Internet is growing at a dynamic rate. Throughout the past few years the Internet has become an integral part in the lives of millions of people and has generated billions of dollars in electronic commerce. More than 90 million people worldwide and some 47 million people in the U.S. alone now log on to the Internet. Intel predicts over 1 billion people will be on line in the next three years. Internet forecasters predict that by 2003 the e-fulfillment market (assuming 25% of the consumer goods market) will be \$1.2 trillion and require some one million fulfillment workers picking, packing, and shipping orders. The sheer size of this fulfillment challenge linked with the customer’s expectations of order cycle speed and 100% accuracy only magnifies the reality that the real e-commerce challenge is not getting the order, but the logistics of satisfying the customer’s fulfillment expectations.

Past or existing systems, processes, and procedures may prove to be more of a hindrance than help in accomplishing the e-logistics requirements of fulfillment. The new demands will require high speed broken case automated picking, true automated cross docking, break bulk, and state-of-the-art sortation packing, inventory tracking, forecasting, and WMS. The new design criteria will include dramatically increased order count, increased ship-to locations, increased SKUs, along with shorter order cycle times, less lines per order, and a zero tolerance for errors.

## SERVICE EXPECTATIONS

Service expectations are rising. No longer are 2 to 3 day order cycle times acceptable. Neither are 2 to 3 days from ordering to receipt at the consumer’s home. The fogdog.com commercial showing



the consumer ordering and immediately going to their printer to receive their goods is rapidly becoming the desired order cycle time. The customer who places an order on line has little patience. Customers expect 24 hour a day, 7 days a week service. Studies indicate an on line customer will only wait 8 seconds for a page to load before canceling or switching to another site and/or page. These customers are looking for instant gratification with no less than 100% order fill, 100% accuracy, without damage or any other form of error.

Traditional warehousing is made up of a break-bulk concept where large quantities of goods are transported by lowest cost methods, often rail or water to a large box configuration storage and re-distribution warehouse in which the quantities are then allocated for shipments, normally in full pallet lots. Thus, the principle activity is the removal of full unit loads or pallets from inbound transportation and the shipping of similar full units or pallets by an outbound transportation mode. The inbound and outbound transportation is generally full truckload or LTL and seldom small parcel.

Fulfillment warehousing is a very different operation from traditional warehousing. The fulfillment warehousing activity differs in that goods are received in less than full unit or pallet quantities that require the input of labor to off load and receive inventories. These inventories are then further subdivided and held in stock picking locations so that individual orders can be picked from stocking locations and assembled into outbound shipments. These outbound shipments are less than unit or pallet quantities, often being individual parcels of each-picked items. The picking activity from individual stock keeping locations is labor intense as is the re-packing and order assembly activity. Thus the fulfillment warehousing process differs from traditional warehousing in its higher unit costs and increased potential of shipping and picking errors, and product damage.

E-logistics is much more than just warehousing. It also includes:

credit card authorization	packaging
order processing	transportation
customer service	package tracking
call center operation	reverse logistics
credit card charge back follow-up	purchasing
order status notification	inventory control
receiving inspection	order selection
monogramming	gift-wrapping

### FULFILLMENT HISTORY

In 1913  
pioneered



favorably  
4 week cycle time. They were understanding of back orders, and would often keep an item even if it weren't exactly what they had ordered. Even in the early days of catalog fulfillment a 20% + order return rate was not uncommon.

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fulfillment  
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Today e-tailers' customers are looking for 1 to 3 day order cycles with 100% fill rates. Zero errors, and return rates of 40% are not unheard of. Yes, the Internet has changed things.

### PICK, PACK and TRACK

Basic fulfillment can be set up and accommodated quickly with minimal investment using static shelving, employing warehouse workers walking to individual stock locations, selecting product and carrying that product back to a packing area to check and pack it.

But in order to accommodate the growing volumes and speed of the order cycle, and rising customer expectations we must look at three functions:

- 1.) Order picking,
- 2.) Product movement, and
- 3.) Information management

Alternatives to the basics are drawer systems, flow

racks, multi-level mezzanines, man-aboard units, carousel systems, automated item picking units, gravity and powered conveyors, diverters,

accumulation, consolidation, sortation, direct truck loading, laser scanners, on-board terminals, RF systems, voice input devices, and state of the art information systems such as: VPN, TMS, WMS, APS, ERP, EDI, ECR, and VAN.

While each of these alternatives offers increased productivity and picking accuracy and most reduce the total order cycle time, these improvements come at the higher cost of capital investment and lessened flexibility.

### CAN'T YOU OUTSOURCE YOUR E-LOGISTICS REQUIREMENTS?

Peter Drucker is credited with making outsourcing popular beginning with his article in the WSJ "to sell the mailroom" where he made a convincing argument to outsource your assessorial activities and concentrate on your core business.

What if fulfillment/logistics distribution is that true way in which you add value to the product? If you don't design, manufacture, or control the marketing of your product offering and if the value you bring to



that product is its distribution/fulfillment, then fulfillment, logistics and distribution are your core business.



Even if it isn't your core business one must recognize that most 3PL's are, and have been founded upon, traditional warehousing and not pick pack fulfillment.

Just a few months ago one was hard pressed to find anyone who even understood fulfillment let alone e-logistics. Not that they weren't willing to learn at your expense.

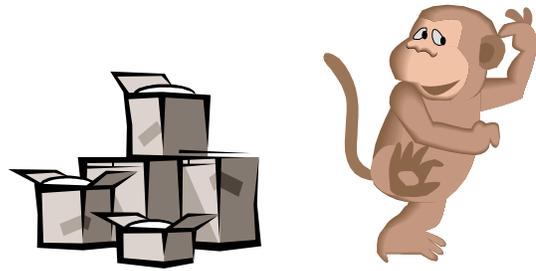
A few such as Logistix, Sykes, Young America, Harris Fulfillment, The Direct Marketing Support Group, Fulfillment America, Keystone Fulfillment, Total Response and others have been around for some time conducting fulfillment activities. Most are industry specific -- catalogs, publishers, literature, promotions, etc. Some like GATX, USF, USCO, Caterpillar Logistics UPS, and Fed Express are rapidly stepping up to fill the void.

#### A LOOK FORWARD

The Internet is changing everything. The opportunities in e-commerce, e-fulfillment and e-logistics are virtually unlimited. Logistics or e-logistics is the cornerstone of e-commerce success. As challenging as it is to capture the consumers "EYES" and convert that attention into actual demand or orders, it pales in comparison to the impact of failing to deliver on the promises made. E-logistics is "that delivery" of those "promises made". Those real time 7/24, 365 days each year of any color, any size, any style, anywhere, anytime, customized and gift-wrapped, if required, and delivered to your door as requested, error free, without fail, each and every time.

That future starts with the basics, but those basics are a lot more than that old mindset of

**"Lick a label and kick a box -- it's just warehousing"**




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#### ABOUT THE AUTHOR

Thomas L. Freese is principal of Freese & Associates, Inc. a management and logistics consulting firm in Chagrin Falls, Ohio. Mr. Freese received his B.S. B.A. in marketing, and an M.B.A. with a concentration in business logistics from The Ohio State University. His experience spans a wide spectrum of products and industries, from bulk chemicals to consumer goods, from books to sporting goods, from shoes to hydraulic fittings, frozen fruit, and fresh poultry. He has consulted to numerous manufacturers, wholesalers, retailers, and e-tailers. He is an active member of the Association of Transportation Law, Logistics and Policy (ATLLP), the Council of Logistics Management (CLM), and Warehousing Education and Research Council (WERC).

He is a frequent speaker at professional conferences and seminars and has contributed to the *Journal of Business Logistics*, *Material Handling Management*, *American Shipper*, *Warehousing Management*, *Logistics Management*, *Traffic Management*, *Food Business*, and *Distribution Center Management*. He has written chapters on "Warehouse Site Selection" and "Third Party Warehousing" for several logistics and warehousing handbooks, in addition to several articles on site selection, customer service, warehouse design and layout, and outsourcing