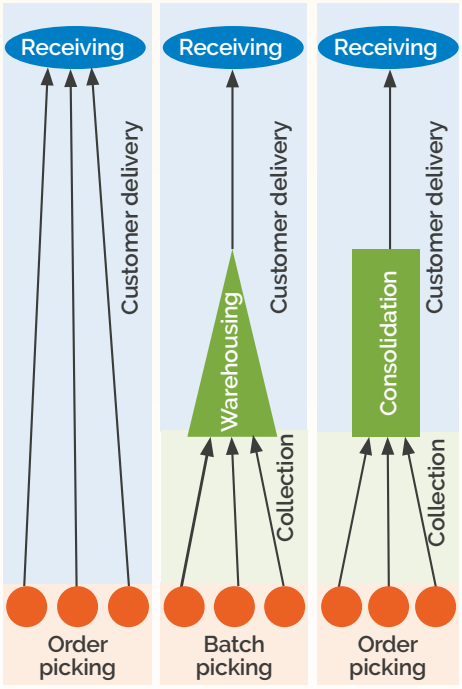
Merge-In-Transit for Logistics and Shipper Companies

A Glance at Clean Freight Strategies

LOCATION MATTERS

Using merge-in-transit (MIT), 3PLs coordinate shipments to a central merge point.



For this strategy, a third-party logistics provider (3PL) merges shipments from multiple origins into one larger shipment before delivery at the final destination. This strategy requires the 3PL to have control to coordinate multiple shipments from different vendors and thus is most applicable to freight-under-management services.

WHAT IS THE CHALLENGE?

Multi-component products, such as computer-monitor sets, present unique challenges to 3PLs. Customers expect to receive all components of orders at the same time. To achieve this service, 3PLs must coordinate with multiple suppliers to get all parts of a product to the end destination at the same time.

WHAT IS THE SOLUTION?

MIT is a distribution strategy that consolidates orders at merge points. Rather than directly shipping each component of a shipment or consolidating deliveries at a warehouse, MIT involves coordinating between suppliers and distributors to consolidate components at an inventory-less merge location.

This strategy can be used for orders with multiple components. Because this strategy can eliminate the need to warehouse products, it can be especially beneficial for products with substantial inventory carrying costs such as high-value products, bulky products, and products with high depreciation or obsolescence costs. The electronics industry and wholesalers offering a broad assortment of products may especially benefit from this strategy.

By coordinating with suppliers and distributors, 3PLs can direct order components to a central merge point for order consolidation. Suppliers, instead of shipping individual orders directly to customers or shipping larger inventories to a central warehouse, send orders to the merge point. This strategy may involve delaying the earliest shipments so that all components arrive simultaneously. At the merge point, the distributor configures the order for final delivery to the customer.

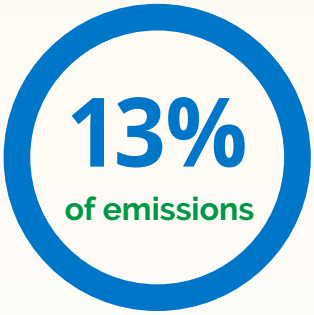
(continued)

COSTS

MIT may involve costs at several stages of the supply chain. In this strategy, compared to a central warehouse model, suppliers may need to ship smaller orders more frequently, thus incurring additional sales transaction processing costs.

For the distributor, transportation costs may be lower or higher. Total time from order to delivery may also be longer.

For the 3PL, the greatest cost tends to be information processing expenses. This strategy is complex and requires timely coordination between multiple suppliers. Investments in information systems may be necessary to implement this strategy.



Thirteen percent of supply chain emissions come from buildings where logistical activities occur.

SAVINGS AND BENEFITS

MIT yields benefits for suppliers, carriers, and customers.

- **Inventory**. MIT can reduce the need for a central warehouse and thus reduce financial costs and emissions. Buildings where logistics activities occur contribute 13% of supply chain emissions. By reducing time in warehouses, MIT can also reduce the risks of depreciation and obsolescence.
- **Product assembly.** With MIT, suppliers can sell more customizable products while postponing assembly, thus minimizing costs for storing finished goods inventory. Postponing assembly reduces the need to store variations of a customizable product.
- **Waste.** With central warehousing, suppliers typically send enough product to avoid running out of stock, but while sitting in warehouses, products may depreciate or become obsolete.
- **Shipping.** Suppliers may benefit from fewer delivery addresses, as they direct all orders to merge points.
- **Customer service.** MIT consolidates multipart orders into one delivery, reducing the costs of receiving deliveries. Customers can receive complex orders without contacting suppliers individually.

NEXT STEPS

1. Conduct a feasibility analysis to determine if this strategy will be beneficial. 3PLs can start by looking at the product itself to analyze suitability: multi-component products that are highly valuable, bulky, difficult to handle, and/or have high depreciation or obsolescence costs are most suitable.
2. Determine the capabilities of suppliers. Suppliers that can guarantee availability of the product, deliver orders in customer size, and ensure consistent delivery lead times will be able to implement MIT best
3. Model the supply chain and develop MIT scenarios. These scenarios should incorporate the logistics costs associated with implementation. After analyzing costs and benefits of MIT, the 3PL can weigh the up-front costs of implementation.
4. If the 3PL chooses to implement MIT, starting with one product at a time can help ease the transition. Because MIT involves complex information processing, gradual implementation gives 3PLs, suppliers, and distributors time to adjust to new systems.

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