

View Point



Oracle Transportation Management for The Manufacturing Industry

Abstract

Manufacturers are facing stiff challenges due to introduction of just-in-time manufacturing processes that require better inventory management and shorter lead times to offset increasing input costs and to meet higher customer service expectations. In addition to this, growing service options from carriers, combined with demand for more frequent and time-definite deliveries are forcing manufacturers to revisit their transportation planning systems to remove transportation bottlenecks, increase visibility thereby improving the overall performance of their logistics process. This paper looks closely at Oracle Transportation Management (OTM) as a holistic solution to transportation requirements of the manufacturing industry.

Manufacturers' Transportation Challenges

The manufacturer needs to improve on time delivery of finished goods and at the same time reduce the inventory levels across the supply chain. A number of factors increased the complexity of the problem.

- Management of inbound/outbound transportation
- Transportation Management
 - Shipment planning and Route optimization
 - Shipment tracking and Supply chain visibility
 - Financial settlement
- Service Provider Management
 - Management of Rate contracts with several independent Service providers
 - Performance Measurement - Periodic reviews of all Service providers to allocate more business based on the past performance
- Supply Chain Visibility
 - End-to-end view of the outbound logistics process.
 - Collaboration of all the players and partners to share information on problems related to delivery of products

Manufacturers' Supply Chain Network

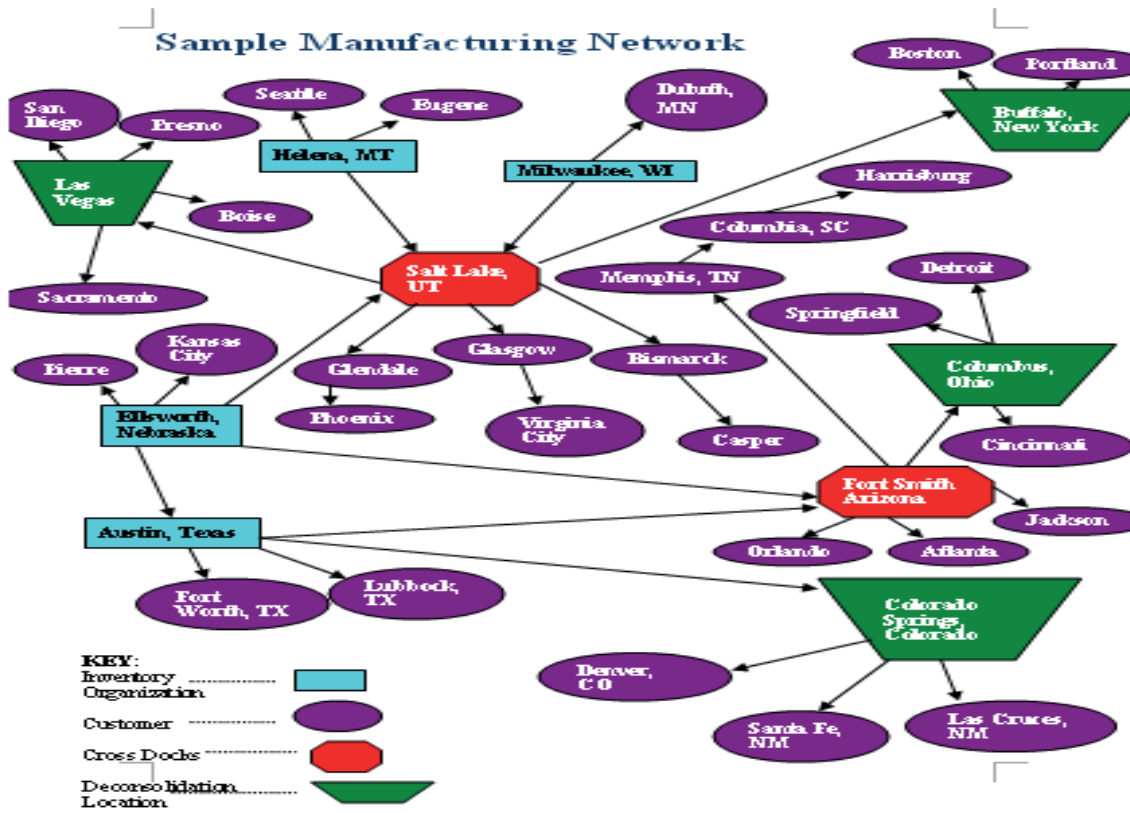
To ensure administrative efficiency and transportation cost optimization, manufacturers have their warehouses spread across the country with many cross dock and pool locations to support the supply chain.

Cross dock points also act as consolidation points where orders are received from various warehouses, consolidated and sent to the respective pool points in that region or directly to the customer locations.

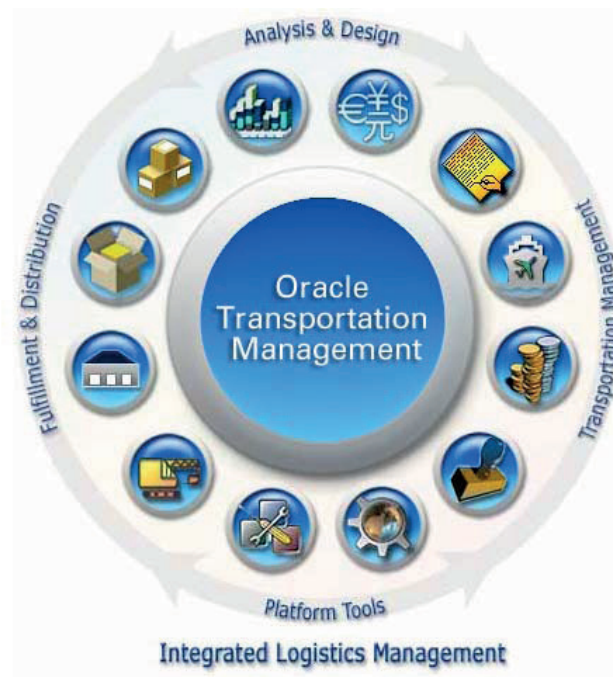
Pool locations cater to outbound shipments in which goods received from the cross docks are sorted and then distributed to the customer facilities. They also receive international shipments which are thereafter deconsolidated and sent to the customer facilities serviced by that pool location.

Products are transported to the nearest warehouse/pool location via truckload (TL) or less than truckload (LTL) shipments. These shipments are consolidated with other compatible product categories and sent to individual customers via truckload shipments

Sample Manufacturing Network



OTM Value Proposition

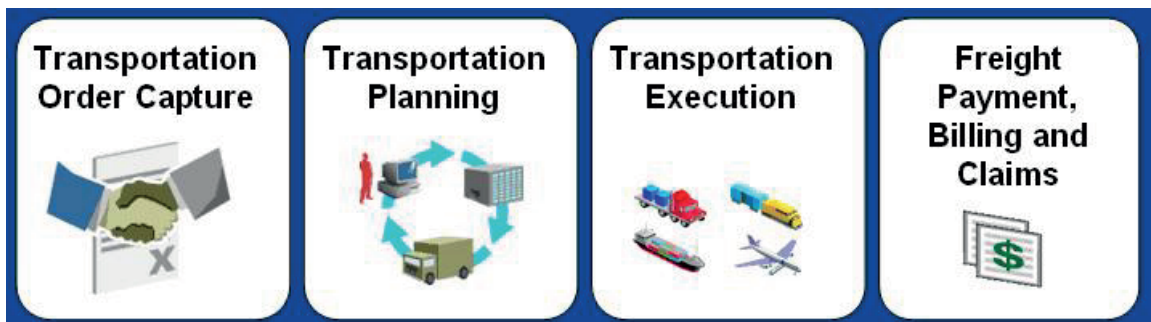


- Strong transportation planning, optimization and shipment execution services will help manufacturers to
 - Significantly reduce product costs, due to lower transportation cost
 - Improved customer satisfaction by increasing on-time delivery of products to meet peak customer demand
 - Reduce stock-outs with end-to-end visibility across the supply chain
 - Improve service levels to distribution centers and the end-consumer

Thus OTM acts as a powerful competitive differentiator – helping planners to deliver goods at a lower cost than competition, thereby allowing manufacturers to reduce prices on key products

- Significant reduction in Operational costs through improved asset and resource utilization
- The supply chain event management capabilities help in managing by exception in order to avoid, circumvent and mitigate any transportation related problems
- End to end order, execution and settlement capabilities improve data accuracy & visibility across multiple sales channels
- Robust integration and portal capabilities to connect all business partners and legacy systems

OTM Solution Footprint



Shipment Planning

- Optimization Strategies
 - Truckload routing
 - Less than truckload shipments
 - Multi-modal international shipments
 - Inbound/ Outbound consolidation pooling
 - Managing Continuous Move Shipments
 - Merge in transit
 - Dim weight and Cube planning
- Global support for addresses, currencies, time zones, number formats and date formats

Shipment Constraints

- **Commodity-Equipment Constraints-** Some product categories have to be transported using 53FT trailers only
- **Carrier Capacity Constraints-** During lean seasons, some carriers can offer only certain number of trucks in a specific route
- **Facility Hours of Operation Constraints-** All DC and stores operate on specific days of a week with pre-defined shipping and delivery time windows
- **Facility Compatibility Constraint-** Some locations have constraints with respect to mode of transport and vehicle. They also have certain preferences for specific service providers only

Rate Management

Manufacturers generally have contractual agreements with many independent service providers to execute planned shipments. These rate contracts can be based on

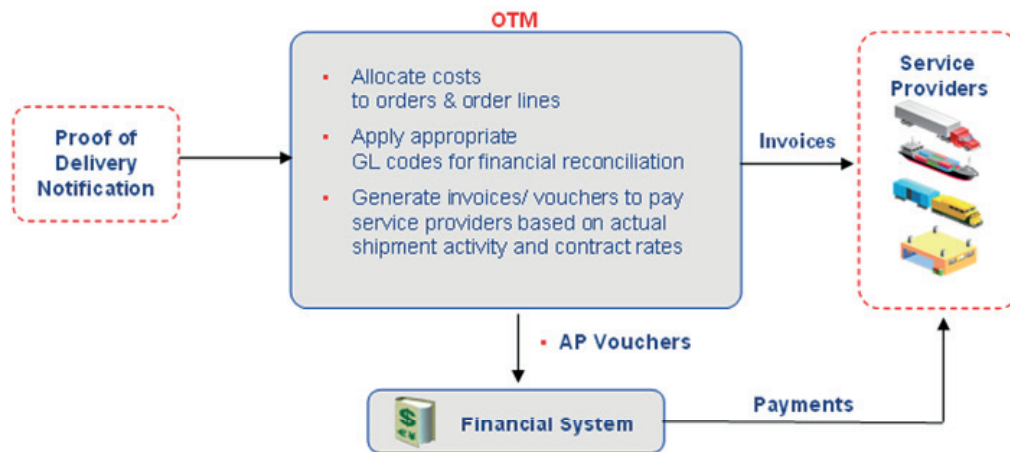
- Transport mode
- Distance travelled
- Dimensional weight and volume
- Weight break profiles and Deficit rating
- Standard Product Classes(NMFC)

Apart from basic rates, certain **additional surcharges** are also levied by Service Providers such as

- Loading and Unloading
- Handling & Palletizing charges
- Fuel Surcharge
- Insurance & Documentation charges

Financial Settlement

- Allocation of Planned Shipment Costs(once shipment has been planned) from Shipments to Line Item levels
- Allocation of Actual Shipment Costs (once shipment has been matched to an invoice and vouchers are created) from Invoices/Vouchers to Orders/ Line Item levels.
- GL codes assignment for post shipment financial reconciliation

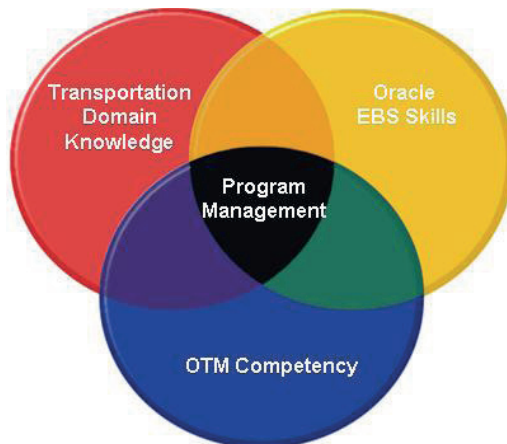


- As shipment is delivered at its destination and Proof of Delivery (POD) is received by transportation executioners; electronic invoices to service providers are auto-generated and redirected to an external Accounts Payable (AP) module for financial reconciliation

Supply Chain Visibility & Event Management

- **Proactive monitoring** of all shipment related activities like custom clearances, loading and unloading, delivery at final destination etc.
- **Complete visibility and traceability** of international shipments from supplier to warehouses through various qualifiers like order reference numbers, line item details etc.
- **Standard alerts and notifications** on potential issues to concerned parties like shipment planners, shipments executioners, service providers and warehouse managers

Infosys OTM Center of Excellence (CoE)



Service Offerings

- Standalone implementation of OTM Release 5.5
- Implementation of OTM integrated with Oracle EBS/ clients' existing ERP system
- Upgrade of prior releases of G-Log to OTM 5.5

Infosys brings in multiple skill sets to deliver value to the clients OTM Initiative:

- Oracle Certified Advantage Partner Worldwide with established Oracle Center of Excellence
- 300 + large Oracle Apps engagements spanning across 40+ countries/geographies over the last 4 years
- Pool of Oracle trained and certified OTM consultants
- OTM CoE is a dedicated applications environment set-up to showcase ready-to-use solutions catering to domain specific requirements specially in Manufacturing, Distribution, LSP and Retail
- Building tools around Applications for accelerated solution deployment in integrating OTM with any other ERP system

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For more information, contact askus@infosys.com

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