Supply Chain Analysis

ORNL has a staff with extensive experience in supply chain analysis and automated support for supply chain systems.
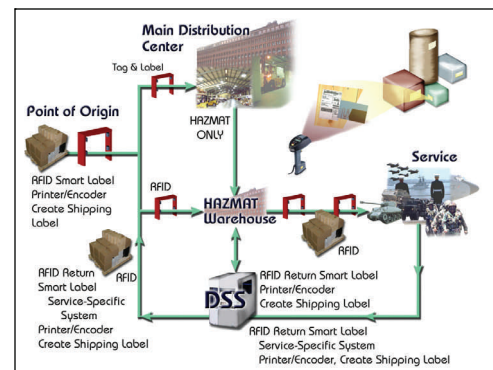
ORNL's Capabilities

- Optimization modeling for supply chain systems, including:
  - Facility number and location analysis,
  - Distribution network configuration,
  - Reverse logistics, and
  - Inventory levels and positioning.
- Integration of supply chain processes with RFID technologies for enhanced information exchange and in-transit visibility;
- Security analysis for supply chains;
- Business case analysis to support the implementation of new technologies or processes; and
- Development of prototype systems for supply chain data collection and analysis.

Distribution Center Location Analysis

Questions ORNL Can Help Answer

- What is the optimal configuration of the supply chain?
- What should be the modal configuration for the distribution net
- How can in-transit visibility be enhanced?
- What can be done to increase security in the supply chain?

ORNL's Comparative Advantage

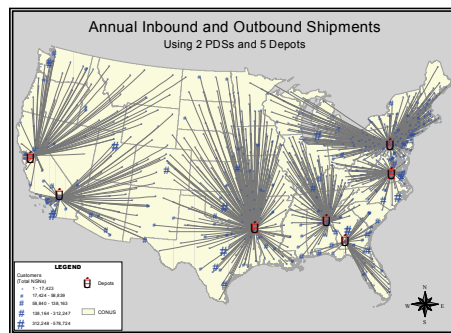- Experienced staff focused on solving the customer's problems.
- Use of state-of-the-art supply chain software and technologies.
- Leverage our experience to provide increased value to the customer.
- Knowledgeable staff who provide unbiased analysis and recommendations.

Supply Chain with RFID Portals

Experience

ORNL staff has worked with the Defense Logistics Agency to do an analysis of the supply chain operations of the Defense Distribution Center. The analysis included a review of suppliers, distribution centers, and customer locations and operations. The study reviewed the transportation operations between these facilities and the inventory levels at each distribution center. The results suggested revisions to inventory levels, transportation supply operations, and distribution center operations.

ORNL staff are also assisting the Defense Logistics Agency in the implementation of their RFID policy at the Defense Distribution Center locations. This effort has included the evaluation of commercial RFID tags, printers, and readers. It also involved the implementation of RFID readers at some of the distribution center locations to identify the RFID tags on shipments as they are off-loaded from the truck.