

Center for Transportation Analysis
(CTA) Research Areas

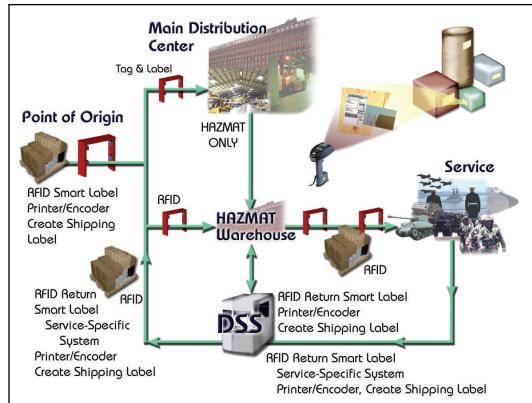
Aviation Safety
Air Traffic Management Analysis
Data, Statistical Analysis
Geo-Spatial Information Tools
Defense Transportation
Energy Policy Analysis
Environmental Policy Analysis
Highway Safety
Intelligent Transportation Systems
Logistics Management
Supply Chain Management
Modeling and Simulation
Transportation Operations
Planning and Systems Analysis
Transportation Security

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 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; and
- Business case analysis to support the implementation of new technologies or processes.



Supply Chain with RFID Portals

ORNL's Comparative Advantage

- Knowledgeable staff who provide unbiased analysis and recommendations.
- Able to leverage our experience to

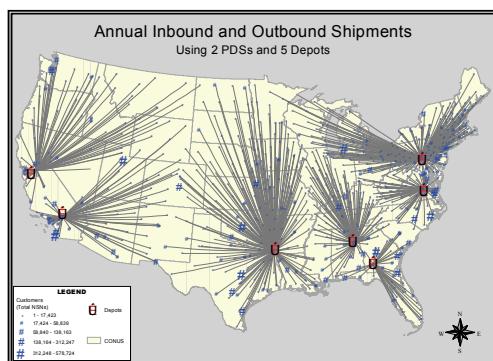
provide increased value to the customer.

- Use of state-of-the-art supply chain software and technologies.
- Experienced staff focused on solving the customer's problems.

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.



Distribution Center Location Analysis

For more information regarding this research contact Glen Harrison, Center for Transportation Analysis, Oak Ridge National Laboratory, phone (865) 946-1312 or email harrisonig@ornl.gov.