



Supply Chain Analysis and Improvement

ORNL has a staff with extensive experience in supply chain analysis and automated support for supply chain systems. Support can be provided in the following areas:

- Design of supply chain system, and
- Recommendations on automated information technology support.

Design of Supply Chain System

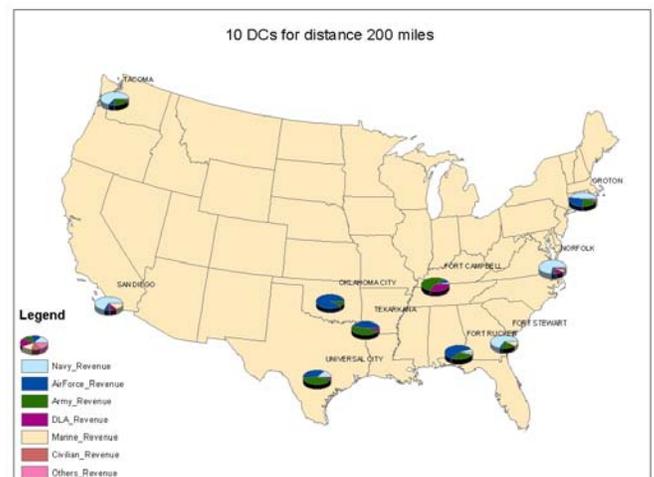
Capabilities: ORNL has experience is working with customers to help redesign distribution center and transportation systems for the distribution of materials to a wide customer base. This includes modeling the optimal number of distribution centers, their size, their inventory levels, and the transportation system between the distribution centers and customer locations.

Experience: ORNL has assisted the US Department of Defense (DoD) Defense Distribution Agency (DLA) to realign their distribution center and transportation operations. ORNL has also provided input to DLA on the optimal location for a new set of hazardous material distribution centers in the US. ORNL is currently working with the Department of Energy Material Protection, Control, and Accountability

program, in determining and implementing a national infrastructure for a sustainable secure transportation program involved in the transportation of nuclear material transportation system. This work involves the design and implementation of a supply chain of vendors, maintenance depots, storage depots, and retail sites for transportation system management, operations, and maintenance.

Recommendations on Automated Information Technology Support

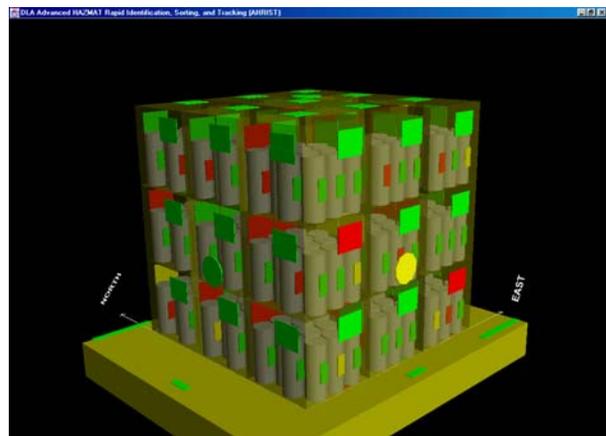
Capabilities: ORNL has experience in the development and testing of different types of Automatic Identification



Technology (AIT) in support of more efficient supply chain management operations. This includes the development and testing of passive and active radio frequency tags; software and interfaces development; and implementing systems that support information transfer in the supply chain.

Experience: ORNL is supporting the DLA to assess the effectiveness of using AIT for use in the Individual Protective Equipment (IPE) supply chain. The pilot evaluates the impact of using Radio Frequency Identification (RFID) technology on pallets and cases of IPE in the distribution processes. RFID systems were set up at the vendor and distribution center to track the material through the supply chain. The pilot provides an opportunity to demonstrate the viability of integrating AIT technology with reengineered business processes to increase the efficiency of the supply chain.

ORNL has provided input to DLA on the ability of RFID technology for use on different types of materials. This evaluation tested different types of material at the individual product, case, and pallet levels to determine how well RFID tags could be read in the warehouse operational environment. This test has give DLA a clear picture of the status of current technology and how it will evolve in the future. ORNL continues to advise DLA on advances and applications of AIT in its supply chain operations.



Contact Information

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