

Oracle Logistics Network Modeling Cloud

Stay ahead of the game with Oracle Logistics Network Modeling Cloud, a solution that enables organizations to design and operate efficient and agile logistics networks. Whether you are attempting to determine the impact of routing options, quantifying potential savings by adjusting shipping and receiving hours at the warehouse, or analyzing the impact of rate increases on your budget, Oracle Logistics Network Modeling Cloud provides an intuitive approach to performing detailed what-if scenario analysis within the context of your operational environment, offering a richer and more accurate set of results that lead to improved outcomes.

AGILE TRANSPORTATION MANAGEMENT

Supply chains and their associated logistics networks are becoming increasingly complex. Globalization, omnichannel fulfillment, demand volatility, capacity fluctuations, rate variations and mergers and acquisitions can have a significant impact on your logistics operations. Many companies deploy point solutions to manage these issues, but they are suboptimal in that they only address specific operational issues, generating data that can be difficult to effectively consolidate and analyze holistically across complex logistics networks. In today's demand-driven supply chains, you need a more powerful solution that can perform robust analyses that are essential in creating resilient, and profitable logistics networks.

Supply chain managers constantly deal with change and disruption. Some situations where they need to determine the impact of a planned change include:

- Adding a customer or supplier to an existing network
- Forecasting impact of changing volumes, capacity and rates to transportation operations
- Determining the best course of action when an unplanned disruption occurs, such as the loss of a key supplier or a port strike
- Changing existing network design or transportation policies to improve operations

Key Features

- Support for strategic and tactical analyses
- Use real-world operational data in your analysis
- Exact replication of operational planning process leads to accurate and implementable results
- Side-by-side scenario comparison with prepackaged and custom metrics
- Intrinsic to your operational environment

Current applications are inadequate as most utilize simplified models, and use aggregate cost estimates based on historical data. As a result, the optimization and planning algorithms can be different from your actual transportation operations, and result in policies that cannot be implemented because they cannot be effectively applied to actual real-world conditions.

Oracle Logistics Network Modeling Cloud provides an intuitive and convenient way to perform strategic and tactical analyses of your transportation network using actual operational data – all within the context of your operational transportation management environment. Oracle Logistics Network Modeling Cloud allows you to perform detailed what-if scenario modeling based on the operational details of your existing transportation network using the same rules, policies, and planning algorithms that you employ in your transportation operations. This generates highly accurate results showing the actual impact of the proposed changes to your operations. Since everything is in the context of your actual operational network, identified changes and responses can be easily deployed as needed.

SCENARIO ANALYSIS AND MANAGEMENT

Oracle Logistics Network Modeling Cloud allows you to quickly define the different scenarios you wish to analyze in the context of your actual operational environment. Multiple types of analyses can be performed simultaneously and each project can comprise multiple scenarios to capture specific variations of data, rules and policy changes that you want to compare.

Oracle Logistics Network Modeling Cloud makes it easy to analyze the results and compare the different scenarios side-by-side. The Scenario Analysis Workbench is a multi-pane, configurable view that provides an easy way to view the resulting shipment plan, drill to the associated details, or view them on the map.



Figure 1: Scenario Analysis Workbench

Key Business Benefits

- Rapidly evaluate supply chain options
- Improve supply chain agility
- Build supply chain resilience
- Maximize operational excellence
- Drive competitive advantage
- Increase sustainability
- Improve top-line performance
- Faster time to value
- Higher profit margins

The Scenario Analytics Dashboard is another powerful view that allows you to compare scenarios using multiple common metrics across many dimensions such as different costs, utilization and shipment configurations. You can define your own custom metrics and visualizations, and compare multiple scenarios using the simulated shipment data. By using the same metrics you use to measure your operational performance, you'll be able to understand the impact of potential changes and determine the best response.



Figure 2: Scenario Analytics Dashboard

When analyzing the scenarios, Oracle Logistics Network Modeling Cloud performs the same planning steps that you would in your operational plans, and uses your actual operational data to generate results showing you the projected impact to your operations. Because the system uses your actual operational data, combined with the proposed changes you get the most accurate results with which you perform your daily operational planning to determine how they impact your operations.

The key capabilities of Oracle Logistics Network Modeling Cloud include:

- Support for both strategic and tactical scenarios. Users can model quick-running tactical what-if scenarios within their operational environments to optimize operations. A separate modeling environment can be employed for longer running strategic analyses ensuring no impact to operations from these performance-intensive analyses, if desired.
- Specify key criteria such as order sets, time duration, etc., to constrain and shape the analysis to better reflect real-world operational conditions.
- Use actual operational data, overlay changes and add additional data, as needed, to analyze scenarios as accurately as possible.
- Replicate operational planning processes, including the ability to run multiple linked daily or weekly plans in sequence or in parallel.
- Use advanced visualizations capabilities in Oracle Transportation Management Cloud to view and analyze the shipment plan details, including stop-level details, for each scenario. Compare scenario results side-by-side.
- Use packaged and custom key performance metrics and associated dashboards that support a variety of slice-and-dice, drill-down and ad-hoc query mechanisms to better understand and compare multiple scenarios side-by-side. OTM Cloud's analytical capabilities are delivered using Oracle's best-in-class business intelligence technology.
- Store scenario analyses for future reference. This allows for past analyses to be referenced and utilized when similar risks or scenarios arise elsewhere in the network and also compared with operational impact, allowing for continuous learning and improvement of strategies.

Related Products

Oracle Logistics Network Modeling Cloud is part of the Oracle suite of Logistics Cloud solutions. Other products include:

- Oracle Transportation
 Management Cloud
- Oracle Transportation Operational Planning Cloud
- Oracle Fleet
 Management Cloud
- Oracle Global Trade
 Management Cloud
- Oracle Order Management Cloud
- Oracle Inventory Management Cloud
- Oracle Warehouse Management Cloud

STRATEGIC SCENARIO ANALYSIS

Optimize your long term logistics operations with strategic scenario analysis. This involves modeling changes in key business conditions and then analyzing the impact to the logistics network over a longer period. Resulting policies may require a network configuration change or a response strategy that could have a high impact to the network. But this often leads to significant and high-value changes resulting in considerable savings. Some examples of strategic scenario analysis include:

- Logistics Network Disruptions
- Freight Cost/Rate Changes
- Carrier/Service Provider Risk Management
- Supplier/Vendor Risk Management
- Network Route Evaluation
- Logistics Network Design
- Sustainability Evaluation
- Cost-to-Serve and Profitability Analysis

 (e.g. adding new customers, new divisions, new lines-of-business, and new geographies to
 existing logistics networks)

TACTICAL SCENARIO ANALYSIS

Tactical scenario management involves analyzing different options to determine the optimal approach to fulfill the current operational demand, and to improve your current network. Typically, legacy systems present users with a single shipment plan based on a single objective – usually to minimize costs. Oracle Logistics Network Modeling Cloud allows analysis of multiple variables simultaneously and within the context of the daily business process, to determine what the best strategy is. This provides a new way to optimize operations that is simply not available from other systems. Executing the response or solution typically requires little to no network change while providing significant savings over current operations. Some examples of tactical scenario analysis include:

- Logistics constraint analysis (can constraints be relaxed to achieve a better solution?)
- Algorithm choice/setting analysis (which setting works best for today's orders?)
- Operational network analysis (are non-traditional routes, modes, carriers applicable today?)
- Transportation policy changes (can you relax time-windows? Can you batch orders differently?)

RAPID TIME TO VALUE

Since Oracle Logistics Network Modeling Cloud is available within your Oracle Transportation Management Cloud environment, there is no additional setup needed to immediately use its capabilities. It uses the same entities and concepts, and is easy to use, requiring no special training.

The ability to perform strategic and tactical scenario analyses using real-world operational data can lead to significant savings. Being able to model the impact of potential changes to your logistics network using actual operational data, and determine the optimal response allows you to ensure that your network is always operating at its best and ensures that you meet your service levels most efficiently. Quickly analyze and easily implement changes to your network settings, design and policies, leading to a resilient supply chain that can easily adapt to the constant change you face. Easily perform supply chain risk analyses, such as Network Disruption Risk or Supplier Change Risk, and ensure that you are always prepared with the optimal response plan for each possible risk.

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