

ORACLE COMMUNICATIONS NETWORK INTELLIGENCE



THE PROBLEM

The expansion of your network footprint due to organic and inorganic growth has resulted in poor capacity utilization. This can lead to higher costs and an impact to customer service

THE SOLUTION

Oracle Communications Network Intelligence is a highly innovative solution that allows NSPs to

- Plan new network capacity
- Predict network resource exhaustion
- Optimize capacity utilization

Telecommunications has become a commodity business. The only way for network service providers (NSPs) to compete in today's economic environment is by increasing operational excellence. However, operational expenditure remains stubbornly high in most NSPs, typically consuming 55 percent to 65 percent of revenue. Network operations account for about 45 percent of this expenditure.

The Issue

The expansion of a network footprint through organic and inorganic growth can result in poor capacity utilization. Many networks today are either overengineered, with large, uneconomic capacity margins built in to guarantee service availability, or they are capacity-constrained and thus largely reactive to capacity demands. If many thousands of changes have to be made to the network each month, the coherence of the network could be threatened and revenue could be lost due to delayed customer activation.

There is widespread recognition within the industry that capacity optimization must be addressed with a "just-in-time" approach rather than a "just-in-case" approach, as supported by the Telecommunication Management Forum's Lean Operator model.

The information that can enable NSPs to achieve Lean Operator status is available within their networks but it is disparate and difficult to extract quickly, and many NSPs lack the tools to tackle the issue in an intelligent and coherent manner.

The Solution—Oracle Communications Network Intelligence

Oracle Communications Network Intelligence enables NSPs to manage, optimize, and plan their network capacity.

- **Plan new network capacity:** Build just ahead of the demand curve and reduce capital and operational expenditures. Build routing plans of future capacity demand forecasts (6 to 18 months) against existing and planned network capacity. Determine the minimum new capacity required, where it is needed, and how much it will cost to deploy. Create forecasts from marketing units or let Oracle Communications Network Intelligence create one for you based on the previous 12 months. The solution can model a variety of scenarios, including wholesale capacity sales bids.
- **Predict network resource exhaustion in a timely manner:** Identify likely capacity stress points in advance, minimizing customer service disruption, and helping to eliminate capacity blind spots.

THE BENEFITS

Oracle Communications Network Intelligence is a highly innovative solution that allows NSPs to

- Deliver just-in-time network capacity, anticipate and implement necessary network change just ahead of demand
- Identify under-used assets and circuits
- Ensure balanced asset utilization and routing capacity so that the network has adequate - but not unnecessary - stretch capacity
- Evaluate existing network to eliminate 'black-spots' and free up capacity (especially expensive leased capacity)
- View multiple networks, with multiple inventory systems as if they were one network. Online, interactive, network navigation and visualization is provided across the networks and / or inventory systems
- 'What-if analysis scenarios can be modeled (e.g. if capacity demand grows by 10 percent in the next 12 months what will be the impact on the network?)
- Trend analysis - project current demand into the future and identify potential stress points
- Analyze planned/unplanned outages and quickly identify restoration circuits
- Provide a business intelligence dashboard for improved decision making
- Provide accurate data for wholesale capacity pricing and sales bids
- Produce a prioritized and costed network investment plan based on service forecast demands
- Provide sophisticated web based reports on the utilization of all entities in a network and reports that verify the accuracy of forecasts against the actual take-up in capacity

- **Optimize capacity utilization:** Reroute all or part of a network so that it has adequate but not excessive stretch capacity. Free up capacity, reduce leased line dependency, and optimize use of all existing assets. Minimize investment in legacy platforms, plan next-generation rollouts in an orderly and cost-effective manner, and minimize the number of physical locations required in the network.

Oracle Communications Network Intelligence is comprised of a number of individual solutions, listed as follows:

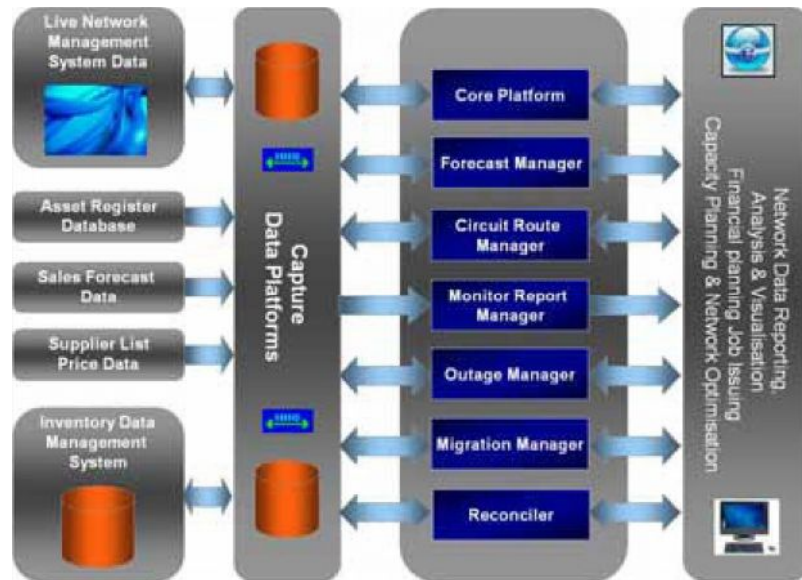


Figure1. Oracle Communications Network Intelligence Product Suite

Network Intelligence Core Platform

The Oracle Communications Network Intelligence Core Platform has been designed specifically for network technical users. Innovative graphics allow users to quickly navigate all aspects of a network and analyze network performance so that capacity can be efficiently managed. Users can quickly drill down to low-level information, saving valuable time in resolving issues. A sophisticated routing engine drives capacity optimization, and users can measure and analyze the utilization of all network entities. The Oracle Communications Network Intelligence Core Platform also provides:

Green Field Network Build - A new network can be built from scratch, out of the box, with default domains and domain values pre-populated.

Web Portal Metadata Support - An administration Web portal is available for administrative users to maintain and create metadata data values in the tool. This is particularly useful during implementation work.

Web Portal Data Loading Administration - A full-featured data loading and synchronization Web portal is available for administrative users. This portal allows administrators to schedule data loads into Network Intelligence. Data errors and modeling exceptions are reported to the user. The data loading software enforces

referential integrity constraints on the data model, and reports on any external data that breach the constraint set. In this way, the data loading software can also be used to clean dirty data.

Network Intelligence Forecast Manager

The Oracle Communications Network Intelligence Forecast Manager ties future sales forecast requirements to network capacity, enabling service operators to predict and minimize network investment requirements. Future sales forecasts can be made by internal business units or Network Intelligence Forecast Manager, based on historical use and trends. Network point-to-point routing demands are also derived from the forecast. The solution calculates the amount of new network build required to route the forecasted traffic over both current and planned network technology and capacity resulting in a network investment blueprint for the business.

All planned entities (including sites, nodes, links, or cards) created as part of the plan also appear in the cost/budget report. This gives a planner a more comprehensive cost report by including tasks and sub-cost items for the new build of these entities. A planner using Forecast Manager can also choose to do one of the following:

- Carry out deep cost-modeling based on definition costs and the costs of building new planned objects referenced by the definitions.
- Apply instance average costs to each entity.

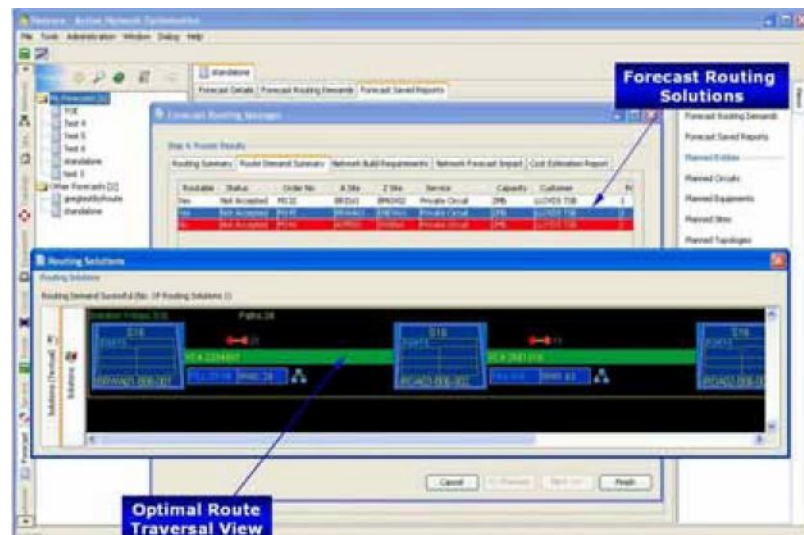


Figure2. Oracle Communications Network Intelligence Module, Forecast Manager

Network Intelligence Circuit Routing Manager

The Oracle Communications Network Intelligence Circuit Routing Manager, in conjunction with the Network Intelligence Core Platform, offers the most sophisticated circuit routing solution available today. Lists of comprehensive routing rules are also provided to deliver the optimal solutions.



Figure3. Oracle Communications Network Intelligence Module, Circuit Route Manager

Network Intelligence Monitor Report Manager

The Oracle Communications Network Intelligence Monitor Report Manager is a Web-based analysis and reporting tool that provides senior managers with vital information when they need it. It analyses network data to identify trends in the network and predict exhaustion dates for all network nodes and circuits. Network Intelligence Monitor Report Manager reports enable readers to drill down from a summary to the details. Users can set conditions in any report, and when one of the conditions is met, the solution notifies the user with an e-mail.

Network Intelligence Outage Manager

The Oracle Communications Network Intelligence Outage Manager, in conjunction with the Network Intelligence Core Platform and Forecast Manager, allows users to analyze critical network outages when they occur. In the case of planned outages, users can prepare for seamless project management and service offload. In the case of unplanned outages, the solution helps users rapidly identify restoration circuits. Outage Manager can identify unprotected circuits and automatically collates them into a traffic demand matrix that is created as an outage restoration plan in Forecast Manager in a very short time.

Network Intelligence Migration Manager

Network growth and service deployment entails asset relocation, customer premises changes, and technology upgrades. Network service providers increasingly spend a lot of energy on planning for these required migrations. The Oracle Communications Network Intelligence Migration Manager, in conjunction with the Network Intelligence Core Platform, allows planning engineers to quickly create a complete migration study and routing plan.

Migration Manager includes support for card migration planning and optimization on a per-site basis. With Migration Manager, a planner can select a particular network site where resources are growing scarce, set up routing rules to specify what products and services can be carried on particular equipment card types, and allow the tool suggest a full site-wide card traffic grooming and optimization plan.

A planner can easily carry out migration planning for networks, topologies, sites, nodes, links and one or more sub-equipment items such as shelves or cards accommodated by a fully persisted reports.

Contact Us

For more information on Oracle Communications Unified Inventory Management, call +1.800.ORACLE1 to speak to an Oracle representative or visit oracle.com.

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