

Network Inventory Services

/// FIXED NETWORK ENGINEERING SERVICES PORTFOLIO ///



NETWORK INVENTORY SERVICES

Today's operators manage a conglomerate of networks and it can be challenging to develop and maintain comprehensive and accurate records of network elements, installed modules, circuits, and configurations. LCC's engineers possess a broad knowledge-base of network technologies, equipment configurations and have performed numerous physical audits of switching offices to help our customers generate current asset records. Based on project experience, LCC has established and refined a standard set of processes and forms for equipment and facility audit services. These standards ensure consistent and reliable results from the physical audits, and they can be easily adapted to the specific format and functions required by any customer for analytical studies or for integration into network databases, i.e. Xpercom/Xng, TBS, and Cramer.

SERVICES OFFERED

> **Market Level Switching Office and Network Facility Inventories** – LCC's Fixed Network Engineering (FNE) team can support its customers with a variety of audit and documentation services.

- Floor Plan Inventory
- Equipment Shelf Inventory
- Equipment & Port Labeling
- DSX Interconnectivity Inventory
- LGX Interconnectivity Inventory
- DCS Circuit Mapping Inventory
- Backhaul Circuit Mapping
- Port Statistics
- Microwave Equipment Audits
- Equipment Software Inventory

In LCC's previous experiences, inventory services have typically been precursors to either network database integrations/updates or detailed evaluations of network optimization opportunities. LCC possesses extensive service portfolios in each of these areas and has often supported its customers with related follow-up activities.

PROJECT EXAMPLES

- > For a large mobile operator, LCC performed comprehensive physical audits of all Mobile Switching Offices (MSOs) in California and evaluated the equipment dimensioning and interconnectivity practices employed by the operator. Much of the focus of the project was on the implementation and provisioning of Digital Cross-Connect Systems (DCSs) within the network and the technological approaches employed for the interconnectivity of physically diverse MSOs. The evaluation resulted in a number of recommendations identifying optimized engineering policies and alternative interconnectivity strategies that promoted more efficient use of network resources. LCC performed a 5-year Net Present Value (NPV) analysis on all recommended network modifications, and taking implementation costs into consideration, identified potential savings in excess of \$25 Million.
- > For a large mobile operator, LCC collected and analyzed the current dimensioning and growth plans of all core network assets (specifically MSCs, BSCs, SGSNs, and transport facilities) distributed nationwide. The objective of the analysis was to apply a national perspective of future subscriber growth against regional and local equipment buildout plans to ensure that the appropriate dimensioning and augmentation plans were in place to support operations through the end of the year. The analysis was based on detailed network architecture and augmentation schedules provided by the operations teams. Based on the information provided, the analysis demonstrated that current MSC augmentation plans were insufficient to meet the targeted subscriber demand in several key markets. These results substantiated similar concerns of the operations teams, and the augmentation plans for those markets were either expedited or modified to account for the targeted growth. In the end, the new augmentation plans were reconciled within the analysis methodology to demonstrate that the network would now meet its subscriber objectives through the end of the year.
- > For another large mobile operator, LCC performed comprehensive physical audits of 25 MSOs within California and Nevada and processed the records for direct integration into the network database. Follow-up work included the evaluation of transport architectures and equipment loading, and the development of a network consolidation and transport optimization plan. Based on the analyses and design work performed, LCC recommended a plan that would generate a 3-year NPV breakeven point and a 10-year NPV savings of over \$200 Million in operational expenses.

Network Inventory Services

LCC has the expertise and experience to address all of your Fixed Network Engineering needs.

Service Offerings Include:

- > Transport Design
- > Turnkey Microwave Services
- > Network Optimization Services
- > Circuit Provisioning & Testing Services
- > Switch Support Services
- > Network Database Services
- > Network Inventory Services
- > RF Testing & Measurement Services
- > BSS Expansion & Integration Services
- > Broadband Wireless Services
- > IP Solutions

For more information on LCC and our Fixed Network Engineering services, please contact us at (703) 873.2000 or visit us on line at www.lcc.com.



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