

Where is your Network  
Operations Center leading you?

**NetBoss**  
technologies Inc.



## Introducing Advanced NMS Solutions For Small To Mid CSPs

Every day, your customers rely on your network to perform flawlessly. That's why operators worldwide trust NetBoss Technologies Inc., (NTI), to help them take control of their network quality.

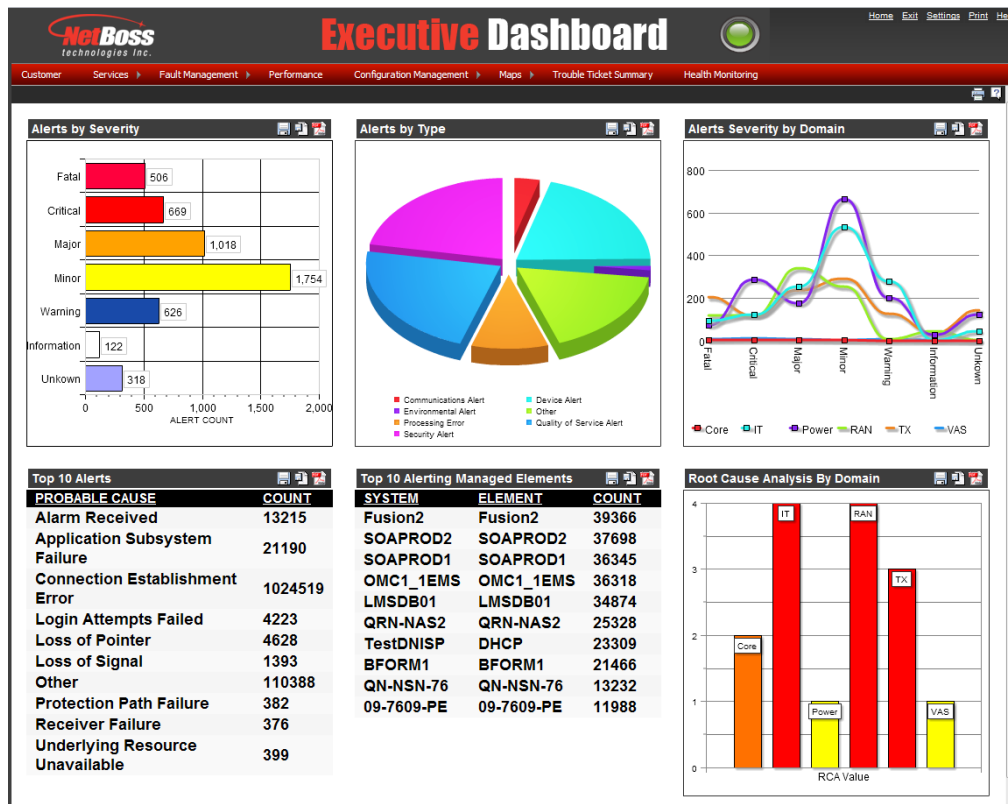
Network complexity grows every day, and existing models for network operations create spiraling operating costs. That's why NetBoss provides network operators with Acuity cloud based NMS Solutions – designed to help automate operations, while dramatically reducing operating expenses and improving network quality and customer satisfaction. Acuity requires no hardware, no software, and no maintenance.

*The customizable Executive Dashboard shows network status and performance for multiple sites across a region.*

## CUT REPAIR TIME UP TO 50%!

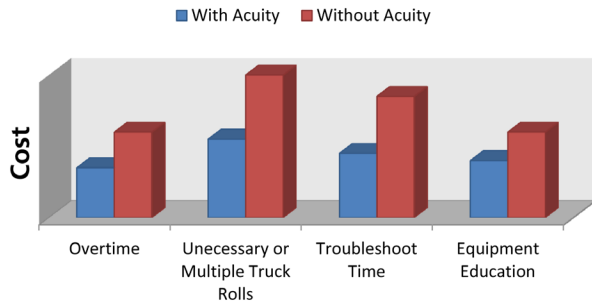
- Remote diagnosis eliminates unnecessary truck rolls
- Automated dispatches – eliminates human error with faster results

A world-class innovator of operations solutions for mid to small size CSPs mobile and fixed-line operators, NetBoss Acuity has earned a reputation in the industry for consistently delivering solutions with exceptional quality and reliability. We are dedicated to working closely with our customers to ensure they take fullest advantage of our solution benefits – maximizing return on investment and operational efficiencies.





## Example of Network Operations Cost



## One Source For Complete Advanced Operations Capabilities

Acuity supports basic and advanced analysis services for voice and data switching, transport, and network access utilizing NTI's product portfolio and 15 years of NOC management experience. Acuity offers incremental value-added proactive testing and alarm correlation services as an extension of your operating environment, not a replacement. Acuity delivers incremental functionality that provides immediate value and a rapid ROI. NTI's staff sets up the necessary connectivity to collect alarm and performance data from each network element, then sends correlated events and reports to executives and

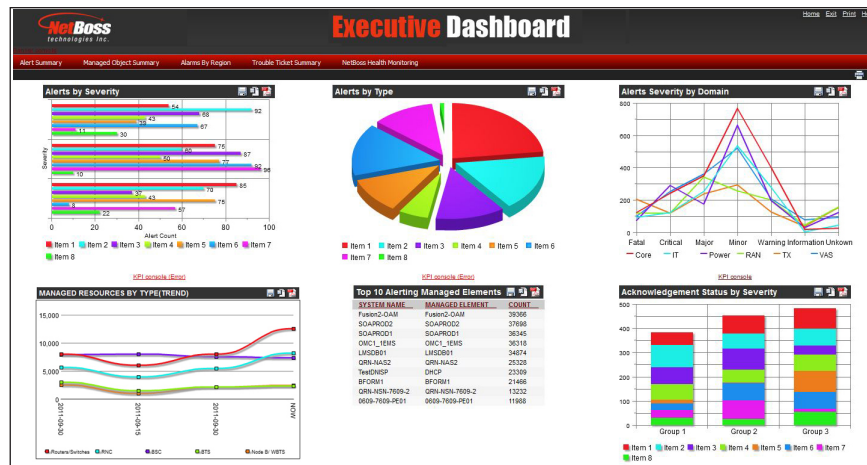
operators via remote mobile dashboards or reports.

Acuity provides our customers with a quick return on investment, helping you achieve or surpass cost-containment objectives. By adopting solutions with Acuity, advanced network operators avoid the expense and nuisance of costly implementation projects, the high purchase price of owning NMS, as well as training and ramp-up cycles of technicians.

## Reduce Operating Costs, Improve Availability

Acuity gives technicians the ability to quickly identify equipment problems remotely – without extensive analysis or an unnecessary expensive truck roll. Technicians are more efficient and productive in dealing with network outages, thereby significantly reducing maintenance-related operating expenses.

Instant problem detection and remote repair enable immediate correction of common site conditions. Degrading conditions can be repaired proactively before service is affected or an outage can occur, resulting in improved network availability and a superior customer experience.



Field technicians can be directly sent assignments. Executives can track progress and evaluate technician efficiency.



### NetBoss Acuity Solutions:

- **Reduce Operating Expenses** by reducing or eliminating diagnostic and “no problem found” truck rolls, while improving technician diagnostic and repair efficiency
- **Increase Network Availability** by reducing mean time to repair (MTTR) and proactively resolving potential outages
- **Enhance the Customer Experience** by improving network quality and reducing customer calls and increasing the labor capacity for network improvements and growth

Providing a focused picture of the conditions of critical components remotely, Acuity gives technicians, managers, and executives real-time views of network service availability through actionable, web-based dashboards. Mobile and

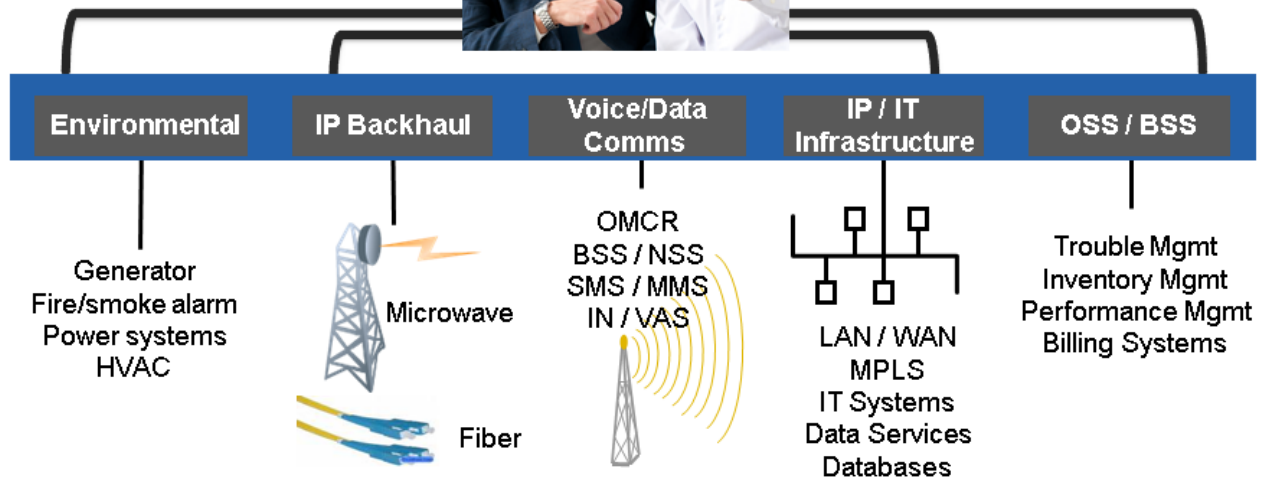
interactive, they deliver actionable information anywhere a moderate speed Internet connection is available, keeping network status in the palm of your hand.

### YOU CAN INCREASE TECHNICIAN EFFICIENCY THROUGH:

- *Remote problem diagnostics*
- *Automated and batched dispatches*

Proactive testing enables scheduled maintenance events, rather than expensive, reactive truck rolls. Identification of common conditions provides immediate correction of service-affecting problems.

### Comprehensive Remote Network Management at All Levels





With Acuity, mobile operators can remotely correlate most physical cell-site elements, including backhaul circuits, radios, antennas, wireless repeaters, and other mobile network assets. With these actionable alarms and possible SLA violations, technicians have essential data for proactive maintenance and maintaining service contracts.

Acuity provides fixed-line operators with remote equipment analysis capabilities, while dramatically reducing operating costs and improving network quality. Acuity provides monitoring for Broadband FTTH Networks to:

- Pinpoint problems quickly
- Identify faulty equipment
- Monitor service availability

## APPLICATIONS

- Alarm Correlation/Filtering
- ProActive Testing
- Root Cause Analysis
- Service Impact Analysis
- SLA Management and Reporting
- Integrated Trouble Management

## Network Element Alarm Filter

Network Element (NE) alarms are filtered and correlated to minimize the number of alerts reported. Additionally, alerts from multiple devices are combined on one display.

This enables you to do the following:

- Pinpoint problems, reducing the time and staff it takes to repair problems
- Accurately identify equipment to repair reducing unnecessary truck rolls
- Deliver succinct information regarding network health executives can use to plan maintenance and growth needs
- Monitor new services (wireless, video, data, TV) and equipment with existing staff

## Root Cause Analysis

NetBoss engineers administer and maintain the expert system that provides your operations team with information necessary to take action to repair failure scenarios. Years of experience gained from managing similar networks is combined with patented modeling and RCA technology to deliver actionable information. The cross domain (switching, transport, access) reporting identifies the equipment to repair while suppressing sympathetic alerts in other domains. By pinpointing the problem domain you can:

- Eliminate duplication of effort; multiple departments/staff are not diagnosing the same problem
- Reduce unnecessary truck rolls by accurately identifying equipment to repair
- Track problematic areas to more effectively plan maintenance and growth needs
- Monitor new services (wireless, video, data, TV) with existing staff



## Root Cause Analysis To Manage SLA Compliance

NetBoss engineers work with your existing BSS systems to map the effect of faults to your service offerings. This provides a clear understanding of the overall cost of the problem and aids in the prioritization of repairs. This more complete picture of equipment faults facilitates informed decision making when assigning repair priority. The available prioritization could significantly reduce revenue losses, for example:

1. Quickly identify probable SLA violations, reducing losses from payback clauses
2. Significantly reduce penalties from
  - a. PUC violations
  - b. Customer trouble reports
  - c. Out of service time reports
3. Minimize service downtime and associated billing adjustments

## SLA And Performance Reporting

Acuity provides your operations team with the information necessary to determine the performance of your access (PON/FTTH) network. This endpoint detail (ONT basis) makes customer specific reporting available.

- Performance Statistics to “prove” advertised internet speeds and availability

Acuity cross domain (switching, transport, access) detail can identify network wide bottlenecks.

- Show where and how bottlenecks effect voice and data communications
- Effective planning for future over build or resource additions

