Mergers and acquisitions, technology migrations and economic cycles make optimizing network capacity problematic. Lack of effective analytics makes voice network management a complex challenge. Getting blindsided by any one of a number of potential network service problems is a real threat.

Impact Technologies delivers definitive, easy-to-use solutions for complex problems. For voice networks, Traffic Analyst cuts through traditional telecom jargon and distills usage and performance data into timely, actionable intelligence that will have a dramatic impact on your business operations.

Networks are dynamic. Calibrating network capacity with demand is an on-going challenge. Whether you are managing a TDM network, preparing for or in process of a transition to SIP, or managing a SIP or hybrid network, you need the right metrics and methodology to optimize your network. And, how do you determine the impacts of day-to-day business operational changes, such as consolidating office locations or transitioning to work-at-home call center agents? Traffic Analyst Network calibrates network capacity throughout the full life cycle of technology migrations and on-going economic cycles with these unique capabilities:
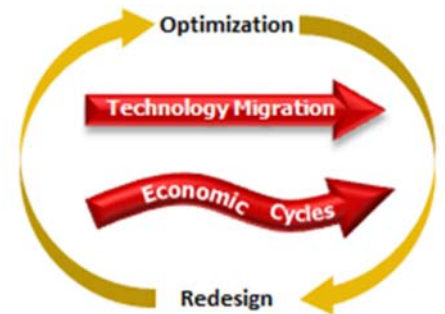
- **Call Route Intelligence** illustrates true caller grade of service based on how calls flow and overflow through the network.

- **Usage Profiles** take the guess work out of capacity decisions by showing detailed histograms of network utilization compared to configured capacity.

- **Look Ahead Alarms** trap and alert you of service problems, such as network saturation conditions, before they impact your business.

- **Real-Time Monitoring** keeps you continually updated on network utilization and saturation.

- **What-If Modeling** forecasts the impacts of changing call volumes, redesigning call routes, converting TDM load into IP Bandwidth and calibrating service levels to business requirements.

YOUR NETWORK, YOUR WAY

By overcoming the limitations and complications of the industry's traditional engineering methodologies, Traffic Analyst provides a simple, more reliable alternative to improve the service and cost performance of your voice network.

- **Customizable Dashboard** honed to each user and environment, streamlining the task of network management
- **Unlimited Reports & Charts** put all your key metrics and views at your fingertips with no time wasted waiting for a vendor to build a new report
- **Virtual Groups** give you the flexibility to choose any combination of switches, trunk groups, gateways or routes for your reports
- **Switch Platform Agnostic** for integrated analysis of networks with a mix of telephony switches from multiple manufacturers
- **Network Discovery** to automatically detect changes in the network, eliminating time-consuming and tedious configuration tasks
- **Flexible Deployment Models** to fit any business requirements and budget

Traffic Analyst is not just another network management package. Traffic Analyst delivers the market's most comprehensive view of voice network utilization and performance, showing current levels in real-time for operational management and historical patterns for planning. With Traffic Analyst, you are on a direct path to achieving your network goals.

Solutions With Impact™

CAPACITY ASSURANCE

By overcoming the limitations and complications of the industry's traditional engineering methodologies, Traffic Analyst provides a simple, more reliable alternative to improve the service and cost performance of your voice network. As you cycle between optimization and redesign projects for your dynamic network, Traffic Analyst's capacity calibration lets you see network utilization and saturation in real-time, quickly pinpoint abnormalities, analyze the impact of coming changes and trap network conditions before they adversely impact performance.

CALL ROUTE INTELLIGENCE

To optimize a network, the first key step is having an accurate account of the level of service the network is providing. It is critical to realize that caller experience is not simply based on the capacity of one particular trunk group but instead how calls can be serviced collectively by all available trunks as defined by your call routing schemes. Where route plans join trunk circuits and callers together, true grade of service can only be determined by an examination of their pooled results.

One of Traffic Analyst's unique features is its ability to model call routing plans. Traffic Analyst accounts for route pools, usage peaks that may not be cumulative and large resource efficiencies. The system keeps you from falling into the trap of maintaining or purchasing excess capacity that will not improve your service levels. Traffic Analyst captures and reports on existing routes via automated network discovery, but will also allow you to create new routing plans to model network reconfigurations.

USAGE PROFILES FOR TREND ANALYSIS

Traffic Analyst's usage profile charts highlight usage trends and capacity. They take the guess work out of capacity decisions by showing detailed histograms of network utilization and simultaneous calls trending. Usage and abnormalities are clearly seen and compared to configured capacity. Quickly find channels or trunks that can be disconnected because of overtunking. Or, uncover where configured capacity is at risk for blocking calls.

PROACTIVE MONITORING WITH ALARMS

When collecting data, Traffic Analyst first scans it for abnormalities and reports those via alarms. A large library of alarms keeps you abreast and ahead of issues, knowing about problems and abnormalities almost as they occur, sometimes even before. Alerts, with user-defined thresholds for low, medium and high priority, are presented on the dashboard and/or emailed. Available alarms include:

- All Trunks Busy
- High Trunk Group Utilization
- Peak Utilization
- No Seizures for a Trunk Group

Traffic Analyst provides a snapshot of alarm conditions in your network and allows you to quickly drill into problems. You decide how you want to view alarms – by priority, by switch, by type.
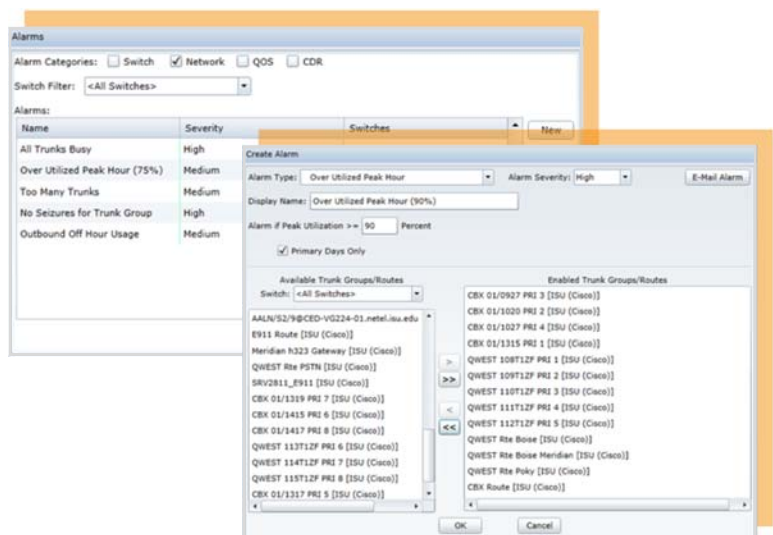

REAL-TIME MONITORING

Are you tired of waiting to get the metrics and analytics you need? Traffic Analyst gives you the latest information available. When data is collected from the switch, your data tables and displays automatically refresh. For
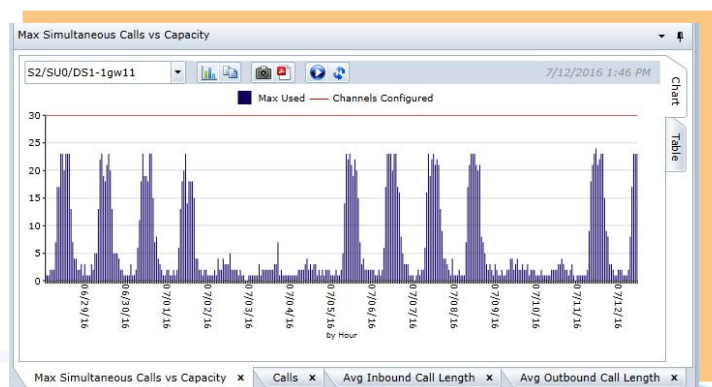
example, the %Capacity chart below highlights the percent of configured capacity for all trunk groups and routes. With a single glance, you can quickly see:

- Peak percent used over the entire report interval (blue bar)
- Peak percent used the last seven days (orange diamond)
- Peak percent used today (red square)
- Peak percent used during the last data collection interval (green circle)
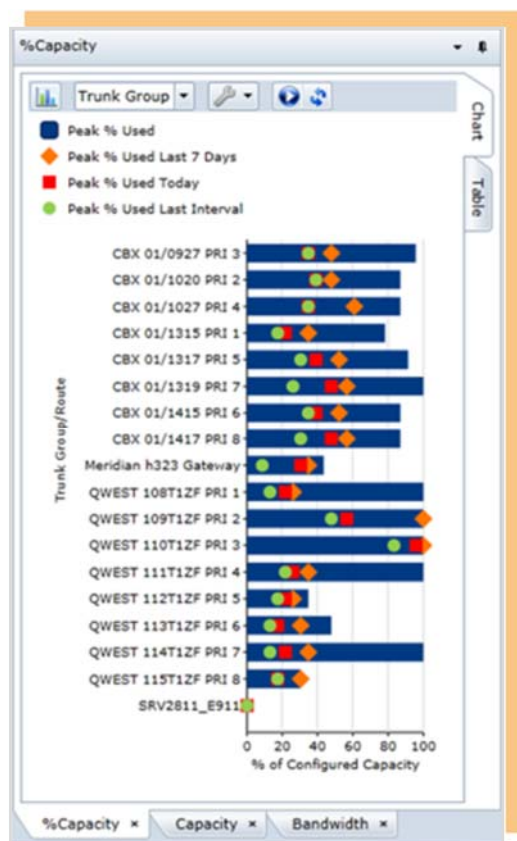
By seeing the latest trends and new alarms, you won't get surprised by network blockage and you can proactively manage your network and elevate service levels.

WHAT-IF MODELING

Given the dynamic nature of networks, the flexibility to determine the impacts of changes is a critical component of a network planning application. Traffic Analyst provides a variety of ways to adjust for transitions in your network. Traffic Analyst's "What if" modeling allows you to

analyze the impact that changes – such as site expansion or technology migrations – will have on your network performance. Don't guess! Use Traffic Analyst to model your scenarios:

- Convert TDM load into VoIP bandwidth and channel requirements
- Define factors for increased or decreased call volume or changes in call length
- Adjust for calls that receive busy signals
- Evaluate varying service levels
- Determine the impact of pooling trunk groups

YOUR NETWORK, YOUR WAY

Traffic Analyst comes with a dashboard based on Microsoft® Silverlight® rich internet application (RIA) technology. Users can customize the dashboard to their preferences by adding, deleting, modifying, resizing and relocating the dashboard's charts and data tables. A broad portfolio of chart types are available and the user has significant control over the chart appearance. Columns in data tables can be added, deleted, grouped, sorted or filtered with a click of the mouse. After creating a new dashboard, the user may simply save their desktop and each time they login, their custom desktop appears.

UNLIMITED REPORTS & AD HOC QUERIES

Traffic Analyst's easy-to-use web interface allows the user to leverage preset reports but also create unlimited reports and ad hoc queries. A library of preset reports include predefined tabular report definitions and associated charts. Preset reports include:

- Network Utilization Last 8 Weeks
- Network Utilization Last 14 Days
- Capacity Analysis Detail
- Network QoS Last 4 Days
- Alarms Last 3 Days

Via the explorer tree, you can choose what you want to report on:

- Entire network, switch, trunk group, gateway or route
- "Virtual" user-defined reporting group

Then you select a preset report, a shared or personal template or create a new report. That's right. You can create any report you need. You don't have to call the vendor or find a programmer. You simply point and click to pick the content, detail and format of your report. Name your report and then you can export to Excel or PDF, print or schedule the report to periodically be emailed directly to your inbox.

Simple, Yet Insightful Analytics

The concepts of Busy Hour, Average Busy Hour, CCITT Busy Hour and the like can be less than straightforward and difficult to understand. Are you uncomfortable relying on them for determining network capacity requirements? Can you explain to senior management how engineering to a p.01 GOS using the Busy Hour optimizes your corporate voice network?

While supporting these traditional analytics and metrics, Traffic Analyst introduces performance metrics and graphs that are easy to understand. Simple graphs clearly show the performance levels, measured in number of blocked calls, peak percent utilization and/or quality of service metrics.
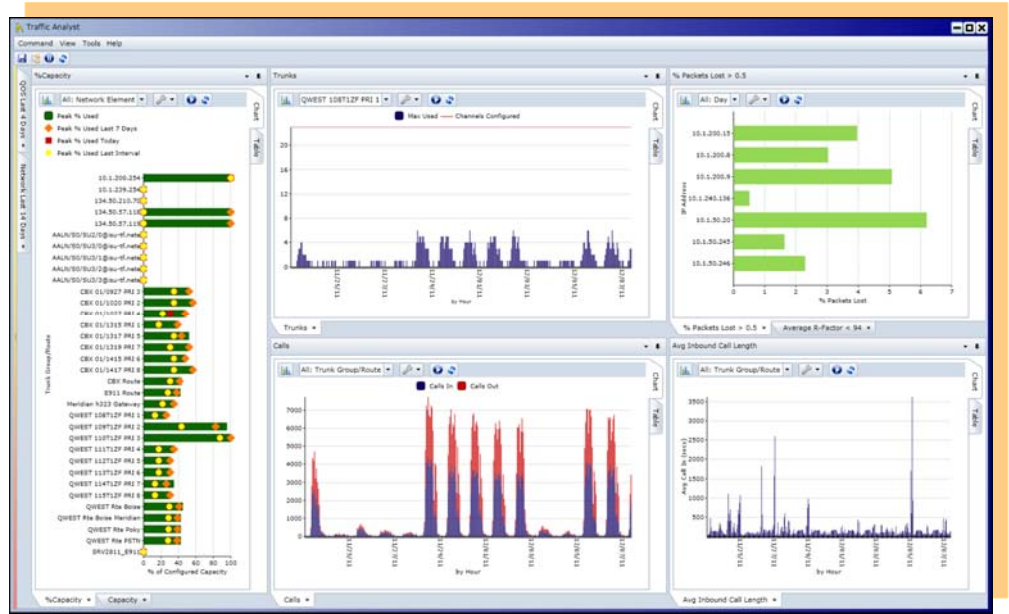
Unprecedented 24x365 Visibility into Your Network's Voice Traffic

Slice & Dice

After you have the key metrics at your fingertips, the next step is quickly digging into the details, particularly if you see an anomaly. And, you can select your drill down logic. Start with monthly data and drill down to daily, hourly and quarterly hour slices with a simple click of the mouse. Or, maybe you prefer to drill down by switch, trunk group and extension. How about by corporate hierarchy of organization, department and manager? Or by building, room, subscriber and extension? For each chart or table, you decide.

QoS Analytics

While VoIP in some ways makes configuration management easier, the complexity of performance management has dramatically increased. While still needing to get channel capacity right, VoIP requires bandwidth capacity determination and QoS management. Traffic Analyst is the answer as you deploy and manage your VoIP network! Traffic Analyst does not require specialized hardware while still providing a comprehensive view of the capacity, trends and QoS for an entire voice network.

With Traffic Analyst you can pinpoint specific cards or devices experiencing QoS problems based on metrics such as:

- MOS
- R-Factor
- % Packet Loss
- Latency
- Jitter

You can see trending analysis and quickly spot any abnormalities that you might want to investigate.
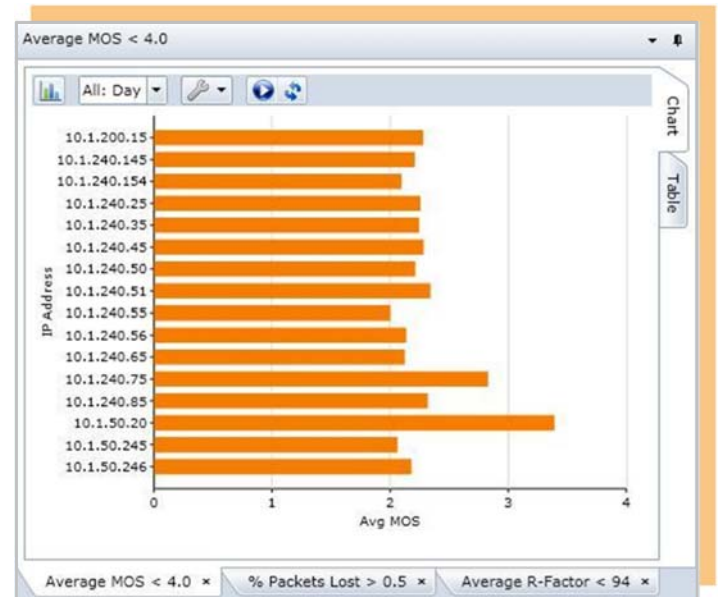
Customized Reporting Groups

With Traffic Analyst, your reporting options are not bound by the design of your network. You can create "virtual" Shared or Personal groups at any time. You simply create a new group on the explorer tree and drag any item into the group. Choose any combination of switches, trunk groups, gateways and routes.

> TRAFFIC ANALYST IS LIKE HAVING AN EXPERT ENGINEER ANALYZING YOUR NETWORK ON A FULL TIME BASIS.

Switch Platform Agnostic

Traffic Analyst is a single portal across mixed networks comprised of multiple switch manufacturers. Traffic Analyst automatically performs continuous network self-discovery across platforms, eliminating time-consuming, tedious, error-prone manual configuration tasks. Based on user-defined intervals, Traffic Analyst collects and processes data for report presentation and alarm processing 24 hours a day, 365 days per year. Therefore, a single query generates a single report and associated charts encompassing data for multiple switches and manufacturers. Traffic Analyst provides continuity across migrations and a common presentation for multiple vendor platforms, including Avaya, Cisco, Nortel and Unify.

Deployed Your Way

Traffic Analyst allows you to choose the deployment model that fits your business requirements and budget.

24x365 Visibility

You get all the data and use all the data to create an accurate analysis of the state of your voice network. You have all the data you need and can decide what time intervals you want to analyze. Traffic Analyst provides two options to eliminate the risks of limited data samples from limited time ranges.

- **Hosted** – Is the option to minimize your upfront investment and on-going maintenance but leverage the long-term benefits of Traffic Analyst attractive? In the hosted model, Impact maintains all the hardware at our location and assures that you are always benefiting from the latest software enhancements. We will communicate with your switch(es) on a daily basis to collect the raw data. Your employees simply use their web browsers to access the reports they want and define their alarms.
- **Premise-Based** – Do you prefer to own and operate the solution on your site? Purchase a license and Impact's Technical Support team will ensure a smooth, effective onsite or remote installation process so your employees can enjoy the same great reports and alarms from behind your firewall. Or, leverage a subscription model with single or multi-year contract.

Snapshot Visibility

Curious to see the insight that Traffic Analyst's analytics can provide for your network but don't want to make a long-term commitment?

- **Traffic Study** – Have data collected from 5 days to 13 weeks and leverage Traffic Analyst Performance, Usage and Capacity Analysis reports for that period plus 30 days to conduct a detailed investigation into your network performance and model changes in your network usage.
- **Network Analysis** – Enjoy the benefits of the Traffic Study, plus receive an inventory of routing plans and trunk groups, what-if modeling options with alternative routing plans, and optimization recommendations to improve performance and/or reduce costs.

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