NETSCOUT.

Application Highlights

- Real-time and historical views support investigation and troubleshooting of problems whenever they occur.

- Multi-protocol and cross-domain support delivers intimate visibility into the most complex call paths.

- Correlation of signalling and media delivers a more complete picture of network issues.

- Integrated media capture and playback reduces escalation to downstream teams for human validation of call quality.

Powered by IrisView™

ISA leverages a proven multi-protocol correlation engine for real-time and historical trace options from a single application. Launched exclusively from the IrisView data adaptation and presentation layer, ISA provides a seamless user experience for session traces independent of the underlying instrumentation.

- All trace functions are supported across deployed SpIprobe, G10, GeoSoft RAN and GeoBlade platforms for a comprehensive and correlated end-to-end view.

Integration with the IrisView framework along with Iris Traffic Analyzer (ITA) and Protocol Analyzer (PA) ensures single sign-on access to and from complementary investigation paths and troubleshooting tools.

- Share session summary and PDU message flow results as PCAP, HTML or .ISA file for extended use by auxiliary departments and vendors.

Iris Session Analyzer Application

Single, Optimized System Improves Productivity

Isolate and Resolve Performance Barriers Quickly

Communications networks handle millions of calls and data transactions every day. While the majority of these transactions are successful, with the growing complexity of new technology, service introductions, element interoperability requirements, and dynamic usage patterns, problems can arise. When this happens, an operator's ability to quickly isolate the root cause and remove performance barriers is critical to maintaining customer satisfaction and protecting revenue.

Call and session trace tools are critical for Network Operations personnel to uncover and analyze the specific calls and sessions that fail to deliver required performance. Whether prompted by threshold-based network alarms or customer-escalation, call trace applications are mission-critical for network operators.

For decades, NETSCOUT has supported the world's leading service providers with Iris Session Analyzer (ISA). Offering the most powerful call trace capabilities in the industry, ISA continues to evolve in order to address the complexities of an ever-changing technology landscape.

Simplified Setup Supports Timely Analysis

For years, service providers have relied on our applications when identifying and troubleshooting their network and services. The addition of VoLTE coverage extends the familiar, user-friendly interfaces to minimize the technology learning curve. Simplified Setup Supports Timely Analysis

An easy-to-use scenario-driven interface takes the complexity out of robust session trace configurations and filter selections.

- Minimize the learning curve for less technical users.

- Reduce trace setup time for more experienced personnel.

ISA accelerates productivity in networks with hybrid (Splprobe, G10, GeoSoft RAN, and GeoBlade) instrumentation deployments with tabbed menus of required and relevant filters, durations, and monitored object selections based on underlying data sources.

- Simplified generic filters extend the application's use to personnel without specific protocol knowledge.
- Extended detailed protocol filters provide advanced filtering support for network experts.
- User filter templates can be saved and shared between users to recover time otherwise spent of re-creating filters.
- Search-enabled monitored object selection menus simplify trace configuration for all platforms from a single interface.

At-a-Glance Assessment and Actionable Investigation Paths

Once a session is started, ISA's intuitive results window optimizes troubleshooting functions. Session summary displays deliver correlated calls based on selected trace criteria.

- Full and accurate correlation of every call ensures all relevant signaling and media messages for a session are collected and presented.
- Simple click-through selection of a specific session populates a Ladder Diagram display and the PDU Details table.

While Ladder Diagram displays provide call flow visibility within the context of the network entities involved, the PDU Details table offers specific information about each message.

- PDU table columns may be easily customized to display any decodable field from the monitored protocols. Columns may be sorted, filtered, reordered, and resized. Color-coding enables quick identification of session timeouts and error return codes.

When further analysis is required, users may select individual PDUs for protocol decoding with the Packet Decoder or a specific user-plane flow summary to explore Flow Details including response codes and uplink and downlink statistics.

Workflows Deliver Accessibility and Productivity

With integrated scenario-driven menus, ISA assists users with every aspect of setting up a successful call or session trace. Fine-tune your problem investigation process with user-defined workflows, scenario builders, session management, local capture, and remote capture criteria. Accelerated customization may be provided by NETSCOUT'S professional services team if desired.

GUI Functionality Expedites Resolution

The Results Window offers network operators a number of GUI-enabled capabilities that may be used to accelerate session investigation and problem resolution.

- **Presentation:** Customize the order and appearance of columns in Session Summary and PDU Message Flow tables. Expand summary level metrics to reveal underlying details on demand.
- **Filtering/Sorting:** All table columns support filtering and sorting to hone in on sessions and messages of interest. Color-coding and custom call failure configurations/categorization improve isolation of "unacceptable" calls/sessions.

Features and Benefits

Accelerated Set-Up

- Optimized selection menus guide users through relevant steps with easy-to-define scenario builders and filter selections.

Complete Correlation

- Full and accurate correlation of every call ensures all relevant messages for a session are collected and presented.

Privacy and Storage

- Digit and content masking support conceals network traffic and call content from unauthorized access to comply with security regulations and subscriber privacy requirements.
- Longer-term storage of schedule session collection is available for forensics and on-going drive test analysis scenarios.

Media Capture and Playback

- Correlated call signaling and associated media are displayed in one comprehensive view.
- Integrated media playback capabilities and unattended media capture options maximize efficiency.

Actionable Results

- Advanced filtering and sorting capabilities allow users to focus on the information that matters most.
- Expand top level messages and graphical summaries with one-click access to additional details.

Usability Features Empower Customer Support

ISA offers a number of features geared towards less technical users-bringing value of E2E Multi Protocol Correlation (MPC) to departments beyond the NOC.

- Ability to select all monitored network nodes eliminates the need for topology familiarity.
- Simple filters with wild card support enable tracing when only subscriber information is known.
- Advanced protocol-based filtering enables the identification of specific network events.
- Real-time trace options support troubleshooting when problem recreation is required.
- Results Windows are easily customized for Tier-1 support users with hiding of "expert" columns.
- Reports and export options standardize communications when problems must be handed off to other tiers or carriers for resolution or validation.

SOLUTION COMPONENTS

NETSCOUT solutions are comprised of a device-agnostic collection and correlation layer that feeds purpose-driven work flow modules and applications such as ISA. With a proven track record and worldwide deployment by Tier 1 operators, the GeoProbe family remains at the center of NETSCOUT's network monitoring portfolio.

GeoProbe SpIprobes

The SpIprobe platform provides true real-time multi-protocol tracking of every transaction across a network, enabling bearer / service, subscriber, link / interface, and node status monitoring for 2G, 2.5G, 3G, VoIP and other network types.

GeoProbe G10

Designed specifically to address high bandwidth IP interfaces and data center applications, the GeoProbe G10 is well-suited for a variety of applications and network domains including mobile data services and data centers (Gn/Gi), next-generation 4G networks (LTE/EPC, VoLTE), and multimedia and convergence (VoIP/IMS, conversational video). When optionally enhanced with deep packet classification (DPC) capabilities, the ISA solution can deliver unrivaled service granularity with every trace.

GeoSoft RAN

Harvesting information directly from inherent element trace ports, GeoSoft RAN-based solutions combine data from multiple elements and vendors for use with NETSCOUT's proven network-wide monitoring system including ISA. With GeoSoft RAN, ISA visibility and value is enhanced with end-to-end troubleshooting capabilities.

- A single, unified view of subscriber traffic across network boundaries (RAN and Core) and technology domains (2G/3G/LTE) arms Tier 1 RAN Operations teams with the real-time and historical information they need to quickly isolate and resolve congestion and interference problems.

GeoBlade

Designed to meet the high resiliency and reliability targets of modern communications service providers (CSPs), GeoBlade spans IP-based technologies and services with elastic software and innovative modular hardware. GeoBlade supports mobile data and data center protocols, next-generation 4G networks, and multimedia and convergence scenarios.

CONFIGURATION HIGHLIGHTS

Network Element Selections
- Select all monitored network elements
- Search for and add/remove specific network elements by name

Filter Elements
- An intuitive GUI facilitates the selection of filters and values for complex trace scenarios based on monitored protocols
- An expression builder supports the addition (+) and subtraction (-) of filter criteria
- Filters allow "wild carding" when exact information is unknown
- All available protocol values are shown with both numeric and text descriptions

Duration Selections
- Real-time
- Relative time (historical, real-time and future) in hours/days/weeks from the current time
- Absolute time (historical, real-time and future) based on any time zone reference

Filter Builders
- Easy-to-learn, easy-to-use GUI
- User templates enable a "quick start"
- Boolean logic expression updates in real-time as filters and values are incorporated

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