COMPREHENSIVE VISIBILITY SOLUTIONS FOR MONITORING FIXED, MOBILE AND IMS/VOIP NETWORKS

Ixia’s Net Tool Optimizer & GTP Session Controller provides a complete network access for Polystar’s suite of Customer and Network Insight solutions.

HIGHLIGHTS

IXIA’s Network Visibility products complement the Polystar Suite of Customer and Network Insight solutions by extending access to all needed mobile network traffic. The joint solution provides complete visibility into network traffic in a highly scalable, easy to deploy system. Polystar provides next generation network monitoring solution that allows the user to ‘see’ all the data and information relating to the control, monitoring and operation of a given telecom network.

JOINT SOLUTION BENEFITS

- Full network visibility – The Ixia NTO delivers all required IP packet based traffic (i.e. IP, GTP-C/U, GRE, UDP, TCP, SCTP) from anywhere in the network through the Polystar MediaProbe to the Customer and Network Insight systems. All traffic can be monitored and analyzed.
Simplified deployment – The solution is flexible enough to work in any network environment and can share access with deployed monitoring and security tools.

Easily scalable – The GSC evenly spreads GTP traffic across multiple Polystar MediaProbes while keeping user & control data together on the same probe.

SOLUTION

The Ixia Net Tool Optimizer® (NTO), GTP Session Controller (GSC), and the Polystar MediaProbe work together to capture and analyze network traffic in a scalable solution that accurately and efficiently monitors networks of any size. The NTO passively directs out-of-band network traffic from multiple access points (SPAN ports or TAPs) in the network to the Polystar MediaProbe for further analysis. Traffic is aggregated from all needed access points in the network to provide comprehensive visibility. In a typical LTE deployment, traffic is aggregated from the Mobility Management Entity (MME) node (reference points S1-MME, S3, S6a and S11) as well as the Serving Gateway (S-GW) and Packet Data Network Gateway (P-GW) nodes (reference points S4, S5, S8, S12 and SGi).

In addition the GSC GTP-session aware load balancer enables monitoring solutions to scale by offloading the correlation of subscriber data from the Polystar MediaProbes. GSC Recognize both 3G and 4G LTE GTP sessions and handles handovers, ensures all GTP packets from a given session end up on the same Polystar MediaProbe. The GSC load balances traffic evenly across multiple MediaProbes while keeping GTP sessions intact, including associated fragments.

The Polystar MediaProbe serves as a primary collection and correlation point for Polystar’s suite of products. Using Polystar’s suite of Customer and Network Insight solutions, the customer can observe the network activity in real and near real time, which is crucial to provide and maintain a first-rate customer, service and network experience.

REAL-TIME CUSTOMER EXPERIENCE MANAGEMENT AND NETWORK/SERVICE PERFORMANCE MONITORING

Polystar helps Communication Service Providers to proactively manage mobile data growth, harness the value of Big Data, and successfully monetise the network assets. Polystar delivers market leading non-intrusive true wire-speed probe solutions to mobile and fixed-line operators which help to simplify the view of the ever-more-complex network technologies, visualise the entire network performance and deliver immediate value to the customers. OSIX is a passive probe system and the foundation for all reporting and visualisation applications. The probes capture all signalling and user data events (e.g. mail, web, streaming) in real time and are used for real-time monitoring, troubleshooting, alarming and xDR generation. One single system supports monitoring of fixed, mobile – including 2G, 3G, LTE and VoIP/IMS networks. By linking OSIX with Jupiter, Polystar offers an end-to-end solution to support Customer Experience Management and Network Performance monitoring objectives.
The Jupiter application suite provides dashboards, reports and analytical tools that create business intelligence out of signalling data and help to deliver mission-critical information about operation and performance to a variety of departments. Polystar’s solutions address the business needs of various departments: from company executives, marketing and roaming, to network operation centres, corporate account managers and customer care. Jupiter provides customer-centric KPIs that help network operators to ensure subscribers’ quality of experience in order to achieve maximised satisfaction and loyalty.

THE IXIA SOLUTION EFFICIENTLY DIRECTS TRAFFIC TO TELCOM MONITORING SYSTEMS

The Ixia solution complements the Polystar solution by providing access to all needed network traffic. The NTO sits between access points in the network that require monitoring and Polystar’s MediaProbe(s). The NTO simultaneously aggregates traffic from multiple SPAN ports/TAPs in the network and directs it to the MediaProbe(s). In addition the GSC provides session aware load balancing, evenly spreading traffic across multiple MediaProbe units while keeping the GTP user + control plane data together on the same probe.

This approach provides efficient access to asymmetric traffic across large heterogeneous networks. When performing troubleshooting, traffic that does not need to be analyzed can be filtered out and correlated by the prior to consuming resources on the MediaProbe. The Ixia solution allows for the sharing of traffic from a network access point with multiple monitoring tools. This capability eliminates the common SPAN port/TAP shortages that occur when another tool is attached to a needed access point.

Additionally, by removing duplicate packets, the Ixia solution can enhance the throughput capacity. An intuitive control panel makes it easy to set up and use, simply drag-and-drop a virtual connection between SPAN ports/TAPs and the probe to make a live connection. Full support for access control, SNMP and Syslog enable easy integration with existing network infrastructure and management systems. The Ixia solution is available as a high availability carrier-class product. The NEBS Level 3 certified platform includes a Central Office (CO) hardened chassis with redundant, hot swappable power supply/fan modules.

ABOUT IXIA’S NETWORK VISIBILITY SOLUTIONS

Ixia’s Tool Optimizer (NTO) & GTP Session Controller provides complete network visibility into physical and virtual networks, improves network security, and optimizes monitoring tool performance. The IXIA solution ensures that each monitoring tool gets exactly the right data needed for analysis. This improves the way you manage your data center and maximizes return on investment. Our customers include large enterprises, service providers, educational institutions and government agencies.
ABOUT POLYSTAR

Polystar is the premier supplier of Customer Experience Management, Network Monitoring and Test Solutions to leading telecom operators, communication service providers and network equipment manufacturers around the globe. Polystar’s innovative product portfolio supports the complete lifecycle of new services and technologies—from design, pre-deployment verification and stress-testing, through roll-out, down to network assurance and service management of in-service mobile, fixed, IP or converged networks. Polystar is recognised as one of the fastest-growing companies in Sweden. Since its establishment in Stockholm in 1983, it has experienced a continuous and sustainable growth, and evolved to a global presence, serving its customers in over 50 countries.

ABOUT IXIA

Ixia delivers a powerful combination of innovative solutions and trusted insight to support network and security infrastructures from concept to operation. Whether you are preparing a product for launch, deploying a service or application, or managing performance in operation, we offer an extensive array of solutions for testing, visibility, and security—all in one place.

Our solutions are used worldwide to validate network functions, test the integrity of security infrastructures, and deliver an end-to-end view of the network. The result: stronger networks, better performance, increased security resilience, happier customers, and maximum ROI.