NetMobility®

Smarter performance and security monitoring for 4G & 5G networks

Features & Benefits

» *Easily scalable for carrier grade networks with traffic rates exceeding 100 Gbps*

» *In-depth 4G & 5G monitoring and analysis, suitable for handing massive IoT throughput*

» *Real-time capture of pre-defined and user configurable alarms to replace manual troubleshooting with proactive discovery*

» *Rich Executive dashboards and comprehensive reports for automated and optimized workflows*

» *Load and performance monitoring of network entities including eNodeB, MME, SGW, P-CSCF, S-CSCF and HSS*

» *Analysis of network and service layer KPIs - such as authentication latency, call setup delay, top talkers, failed sessions, etc.*

» *Advanced correlation-enabling VoLTE analytics*

» *Drill down capabilities - from high level KPIs to sessions and packet-level details - enables rapid performance and security problem troubleshooting*

» *Deep protocol analysis for Diameter, GTP, and more*

NetMobility's Advanced Analytics

Now more than ever, mobile subscribers, organizations, and individuals increasingly rely on the dynamic of being "always-on" and "always-connected," for voice, data, video, and mobile broadband services in 4G and 5G networks. With heavy reliance and usage of LTE and IMS, providers need to securely and successfully innovate, deploy, and monitor a wide range of products and services to meet business objectives. For example, as VoLTE becomes a key revenue driver, carriers and service providers must be able to both deliver and manage high quality, always available voice services while aggressively minimizing degradations which may easily be perceived as poor quality of service and user experience. As the mobile infrastructure landscape becomes a complex matrix of networks, services, devices, applications, and security threats, the greatest challenge to providers and carrier class operations is the management of end-to-end security, performance, and availability.

Your customers will not compromise on their demands, and neither should you! NIKSUN NetMobility differentiates from conventional market offerings by providing both security and performance monitoring for 4G & 5G networks on a single appliance. With advanced correlation of user data traffic and control traffic, NetMobility can pinpoint performance degradations and security threats impacting a network segment, a user application, or a subscriber handset. Monitoring across numerous network entities, NetMobility provides visibility and insight to propel planning and prioritize network event responses and remediations. By detecting and isolating cyber security threats, malicious traffic and affected user devices, NetMobility significantly reduces Mean Time to Resolution (MTTR).

NetMobility allows service providers and carriers to simplify management, security, and operations while guaranteeing the best availability and quality of applications and services for subscribers. Ultimately, this enables your carrier class network to maximize performance and secure services to effectively manage the user experience.

Challenges

Performance: LTE and IMS introduce new models of Quality of Service (QoS) and Quality of Experience (QoE) to service providers. This necessitates visibility into performance indicators such as load and response times for individual network components including eNodeB, MME, and SGW as well as tracking bandwidth usage by subscriber and application.

Security: Mobile networks traditionally were relatively insulated from IP-based cyber security threats. However, the convergence of Internet-based application and LTE/IMS technologies - which natively use IP - puts both providers and subscribers at risk to new attack vectors. They are now vulnerable to an array of threats, such as DoS and DDoS attacks, port scanning, malware propagation, and service theft attempts.

NIKSUN's Holistic Solutions

Designed with practicality in mind, you never have to choose between security and performance. From a single, unified console, simply select from pre-defined or customized dashboards, alarms, and reports to hone in on the data that is important to you. Unified intelligence enables greater operator visibility into LTE and IMS infrastructure for tightly integrated performance and security monitoring.

NetMobility's centralized management allows you to generate, collaborate, analyze, and deliver reports for various organizational needs. As a collaborative platform, NIKSUN NetMobility accelerates diagnosis of complex patterns and triaging of threats on both user and control planes, to correctly identify bad actors or network throttle points. NetMobility's flexible and customizable alerting intelligence delivers real-time detection and notification to enable effective investigation and remediation of these security threats and attacks.

Scaling to traffic rates beyond 100 Gbps on a single platform, NetMobility is ideal for non-intrusive monitoring in carrier class operations. NIKSUN NetMobility delivers comprehensive security and performance monitoring to meet the challenges of modern carrier grade deployment scenarios. It is always ready with subscriber, application, and network intelligence for smarter monitoring of your next-generation networks.

The resultant outcome is an overall insight into service providers' objectives while simultaneously satisfying growing customer expectations. NetMobility gives Network Operations Center (NOC) analysts awareness of subscribers' QoE to preemptively identify "hot spots" in the network. Based on application demands, the operator can plan for changing trends in their networks or quickly drill-down to identify the cause of potential issues. NetMobility can assess and correlate "Cause Codes" that are returned by the network to relate caller experience with network events – granting visibility and true insight into signaling and application data.

NetMobility is offered in the following package options:

Features	NetMobility-EPC	NetMobility-IMS	NetMobility-IMS and EPC
Diameter- AAA, Billing, Accounting	●	●	●
GTPv2c - Tunneling Control Messages	●		●
GTP-U – Extract and Analyze Tunneled data	●	●	●
SIP VoIP Signaling		●	●
RTP VoIP Media QoS			●

Technical Information

Monitoring Support - VoLTE & data traffic, EPC & IMS, S1-U, SGi, S1-MME, S11, S5, S8, S6a, s6b, Gx, Gm, Mw, Cx, Rf, SIP, RTP and more. CDMA2000: A10, A11, A12, RADIUS, and more.

Standards Compatibility - All major standards including 3GPP 3GPP2, IETF and ETSI

Integration: *Authentication* - TACACS+, RADIUS, LDAP and Active Directory. All NIKSUN products integrate with NIKSUN NetOmni™ Full Suite for enterprise-wide data aggregation, reporting and visualization.

Package Availability - NetMobility is available as an optional package on NIKSUN NetVCR® and NetDetector® products.

Interested in learning more?

For more information, please visit us online at niksun.com.