



# NetMobility®

## Monitor performance & security in next-generation mobile networks

DATASHEET

### Features & Benefits

- » *EPC, IMS and CDMA monitoring and analysis*
- » *Monitoring of load and performance of network entities - eNodeB, MME, SGW, P-CSCF, S-CSCF and HSS*
- » *Analysis of network layer KPIs - such as handoff latency, call set-up delay, etc.*
- » *Monitoring and alerting of service layer KPIs - such as top talkers, registration rates, failed sessions, and handoff rates*
- » *Pre-defined and user configurable displays, alarms and reports for EPC and IMS*
- » *Drill-down from EPC and IMS sessions, to packet level details in order to rapidly troubleshoot performance and security problems*

The demand of multimedia, innovative user application growth and on-demand service markets are resulting in unprecedented demands on network service providers. These creative services and instant contact requirements for integrated voice, video, data and media for new and creative ideas, require multiple technologies to be negotiated for a single session. The challenge of resource and bandwidth management is further compounded by a new era of the exponential rise of security threats to the operator infrastructure and data along with threats to their users' content.

For wireless operators, 4G network technologies are no longer just an option, but a necessity. However, access bandwidth limitations as well as SIP, VoIP and internet protocols enabling next-generation services create a new generation of performance and security vulnerabilities. As the complexity of network and the security threats increase exponentially, the existing methods of performance and security monitoring on discrete vendor platforms are proving to be either too expensive, or ineffective in providing monitoring and protection for the changing market and technology needs.

Unlike the market offering of separated performance and security products, the unique NIKSUN® NetMobility offers tightly integrated security and performance monitoring in a single solution. The ability to quickly discern and identify the threat allows operators to not only differentiate between performance and security, but positively identify the type of security threat, thereby significantly improving the mean-time-to-resolution (MTTR). Identifying malware, correlating user traffic to the device, monitoring blacklisted sites, and isolating overloaded network elements before user-impact, can positively enhance customer security and satisfaction. This results in the realization of the operator's business objectives.

### LTE Challenges

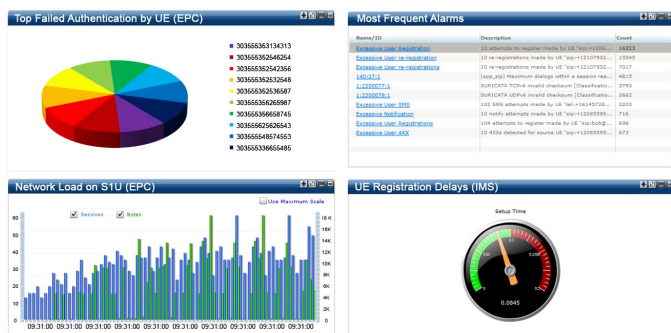
**Performance:** LTE/EPC and IMS introduce new models of Quality of Service (QoS) and Quality of Experience (QoE) to service providers. By measuring the load and response times on individual network components (eNodeB, MME, SGW, etc.), measuring BW utilization by IMSI and application, the NOC operators can measure the QoE experienced by users to predict or preemptively identify "hot spots" in the network and work around the cause. 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. Correlated "Cause Codes" returned by the network can qualify caller experience with network events. Under normal operating conditions, metrics that are consistently close to threshold limits indicate potential problems that should be mitigated, perhaps by adding capacity.

**Security:** Since LTE/EPC and IMS infrastructure natively uses IP and is connected to the Internet, this makes it a tempting target for attacks from the public Internet and from malicious or hijacked subscriber devices. These attacks can range from DoS/DDoS attacks, port scanning, blacklisted site visits, to Trojans in legitimate applications (e.g. interactive games) or service theft attempts.

NetMobility is the only solution in the marketplace that can analyze both conditions in a single appliance without the grueling pain of exporting data between multiple solutions addressing either security or performance issues.

## NIKSUN's Holistic Solutions

NetMobility gives service providers an integrated security and performance solution in a single appliance. Unified management allows the operator to manage existing hybrid networks and migrate efficiently and securely from 3G to 4G networks by providing a holistic centralized management center, thereby reducing cost and network management chaos. Integrated alarms, secured access privileges and management reporting capabilities connect day-to-day operations with network and business management seamlessly.



NetMobility Dashboard & Alarms  
(Click to drill-down & discover)

Operations staff and experts can collaboratively analyze or deliver integrated reports to each other or management. They can diagnose complex patterns or threats (including related data and transaction flows at the CDMA, LTE/EPC and IMSI networks), and identify malware or network throttle point and take the necessary corrective actions – all from a single integrated solution offered in NIKSUN's "out-of-the-box" NetMobility Solution.

## Technical Information

**Monitoring Support:** EPC & IMS: S1-U, SGi, S1-MME, S11, S5, S8, S6a • IMS: Gm, Mw, Cx, Dx, RTP, RTCP • CDMA2000: A10, A11, A12, RADIUS and many 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](http://niksun.com).



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