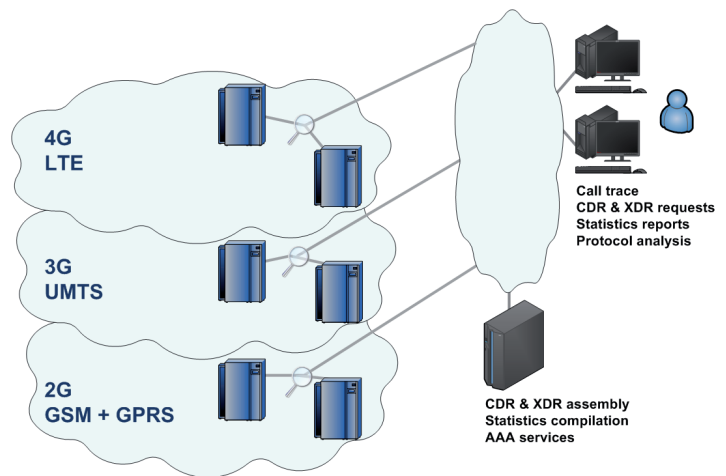


SGA-NETMON

The GSM/GPRS/UMTS/LTE Network Monitoring System

System Monitoring and Analysis

AITIA's SGA-NETMON system is designed to monitor GSM, GPRS, UMTS, and LTE signaling links. It can be used either as an integrated, complete solution, or covering one of these specific technologies. The system enables operators to capture or retrieve traffic on the bit level, to analyze calls and transactions, to provide various statistics, and to trigger notifications based on user-defined events.



Main Features

- Non-intrusive 7/24 monitoring and capturing from 64 kbps PCM channels up to 10 Gbps Ethernet
- Handling of both SS7/E1 and SIGTRAN data streams
- Lossless packet capture
- Timestamp accuracy down to 10ns
- Generating, storing, and archiving
 - ISUP, INAP, and BSSAP/RANAP Call Data Records (CDRs)
 - GTP-C and GTP-U Transaction Data Records (XDRs)
- Sophisticated search possibilities in the CDRs and XDRs
- Detailed protocol decoding, filtering
- Comprehensive message statistics
- Statistics generation according to international standards (ASR, NER)
- System-wide alarm handling and multi-level logging
- Forwarding alerts to NOC via SNMP, e-mail, or Telnet command execution
- Simple, modular, and scalable architecture
- Rigorous user authentication and logging to avoid fraudulent access
- Using TCP/IP for the connections between the components
- Covered protocols in brief:
 - LAPD, DSS1, MTP1-2-3, SCTP, M3UA, SNM, SLT, IWUP, SCCP, SCMG, ISUP, BICC, SIP, TCAP, BSSAP, RANAP, BSSMAP, SMRP, DTAP (MM, RR, CC), INAP, MAP, CAMEL, MGCP, EGCP, SS, SMS, etc.
 - LLC, SNDCCP, UDP, IP, TCP, IP, GTP-C, GTP-U, Diameter, etc.



AITIA International, Inc.

Czetz J. utca 48-50., H-1039 Budapest, Hungary

Tel.: +36 30 397-8303, +36 1 453-8080 Fax: +36 1 453-8081

E-mail: sga@aitia.ai

sga.aitia.ai

SGA-NETMON

The GSM/GPRS/UMTS/LTE Network Monitoring System

Reliable System, Modular Architecture, Centralized Administration

The system consists of

- various passive monitoring probes distributed at far-away sites,
- central servers for AAA, statistics, CDR and XDR generation,
- user terminals with client software for call tracing, CDR and XDR requests, bit-level protocol analysis, and many more.

The system elements are built on reliable and modular industrial PCs, and self-made, time-proven, lossless network interface cards. The system can be administered from a remote, central location. It is robust against data loss in case of IP connection break-down or power failure.

Hardware

The monitoring system is built on self-developed interface cards, hosted in industrial grade PCs. Transport technologies ranging from E1 to 10 Gbps Ethernet are all covered with various cards of the SGA-family.



Our cutting-edge SGA-10GED card has been designed for monitoring 10 Gbps Ethernet network segments. It has a PCI Express x8 bus for the quickest data transfer available in current PCs, and two XFP slots for two 10 Gbps Ethernet transceiver modules. The powerful on-board FPGA chip makes lossless packet analysis possible.

More information about monitoring hardware for other technologies can be found on our website: <http://www.fpganetworking.com>

AITIA Telecommunications References



AITIA International, Inc.

Czetz J. utca 48-50., H-1039 Budapest, Hungary

Tel.: +36 30 397-8303, +36 1 453-8080 Fax: +36 1 453-8081

E-mail: sga@aitia.ai

sga.aitia.ai