



TravelHawk Pro

LIVE LTE NETWORK CAPTURE AND ANALYSIS

ULTIMATE PORTABLE TROUBLESHOOTING ANALYZER

Accurate Capturing

- › Up to 40 Gbit/s line-rate data-processing
- › Simultaneous multiple 1 GigE and 10 GigE support
- › Storage capacity for over 10 Million LTE sessions (signaling and user plane)

Full LTE Network Coverage

- › All LTE/EPC signaling and user-plane interfaces analyzed and correlated
- › Statistics, session analysis and detailed protocol analysis support
- › Detects all commonly used applications such as Skype, Facebook, FTP, e-mail and VoLTE
- › Seamless signaling to user-plane correlation

Portability With Performance

- › Easy to carry to any site
- › Interface analysis from live MME/SGW site

OVERCOMING ENGINEERING CHALLENGES

On-site troubleshooting
 Complete visibility
 Quick error resolution
 Field engineer empowerment



Reduce
 MTTR,
 OPEX
 and churn

Increase
 QoS/QoE and
 operational
 efficiency

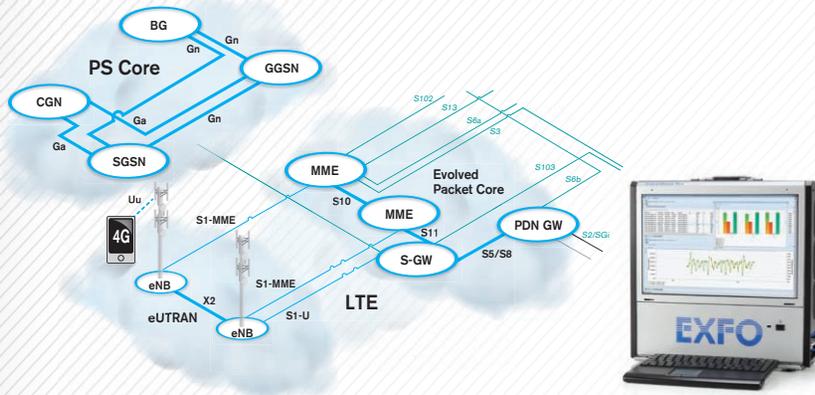
Relevant LTE Network Components



Applicable Technology Phases



ADVANCED CAPTURE AND PERFORMANCE ANALYSIS FOR COMPLETE NETWORK VISIBILITY



All interfaces supported with statistics and details

LTE Live Network Troubleshooting

- › Customer trouble ticket resolution
- › MME/eNB/SGW
- › E2E troubleshooting
- › System or element verification

Transmission and IP-Application Analysis

- › Ethernet network issues
- › User experience per application
- › First-office application testing and verification

Data Capturing

- › Over multiple links
- › 1 GigE and 10 GigE links
- › Data availability ensured in any part of the network

ANALYSIS APPLICATIONS



- 1 Diagnostics Suite gives information to determine QoE:** See network KPIs, subscriber and application-level QoS, call and IP session data and a wide range of network statistics.
- 2 Call and Session Analysis for troubleshooting:** See how individual calls or sessions evolve over multiple interfaces with detailed phase information and other parameters.
- 3 Protocol Monitor enables root-cause analysis:** See how the elements communicate with each other by following the sequence of messages with full details.

TECHNICAL SPECIFICATIONS

Power supply

- › AC (standard)
- › Additional -48VDC (optional)

Interface cards (copper/optical)

- › 4 x 1 GigE (Max 2 per unit or mix with 10 GigE card) (NH5507)
- › 2 x 10 GigE (Max 2 per unit or mix with 1 GigE card) (NH5505)

Analysis options

- › LTE/EPC signaling analysis (TH007)
- › IP-application analysis (TH008 or TH009)

Clients

- › Diagnostics Suite (TH0011)
- › M5 Analyzer client software (TH0012)
 - › LTE/EPC detailed analysis package (TH0013)
 - › SIP/IMS detailed analysis package (TH0014)