NetHawk M5 – new multi-technology analyser for UTRAN, GERAN and Core

Contents

> Increased complexity in the operating environment

> Where the NetHawk M5 can help?

> Problems solved with the NetHawk M5

> Why NetHawk M5?

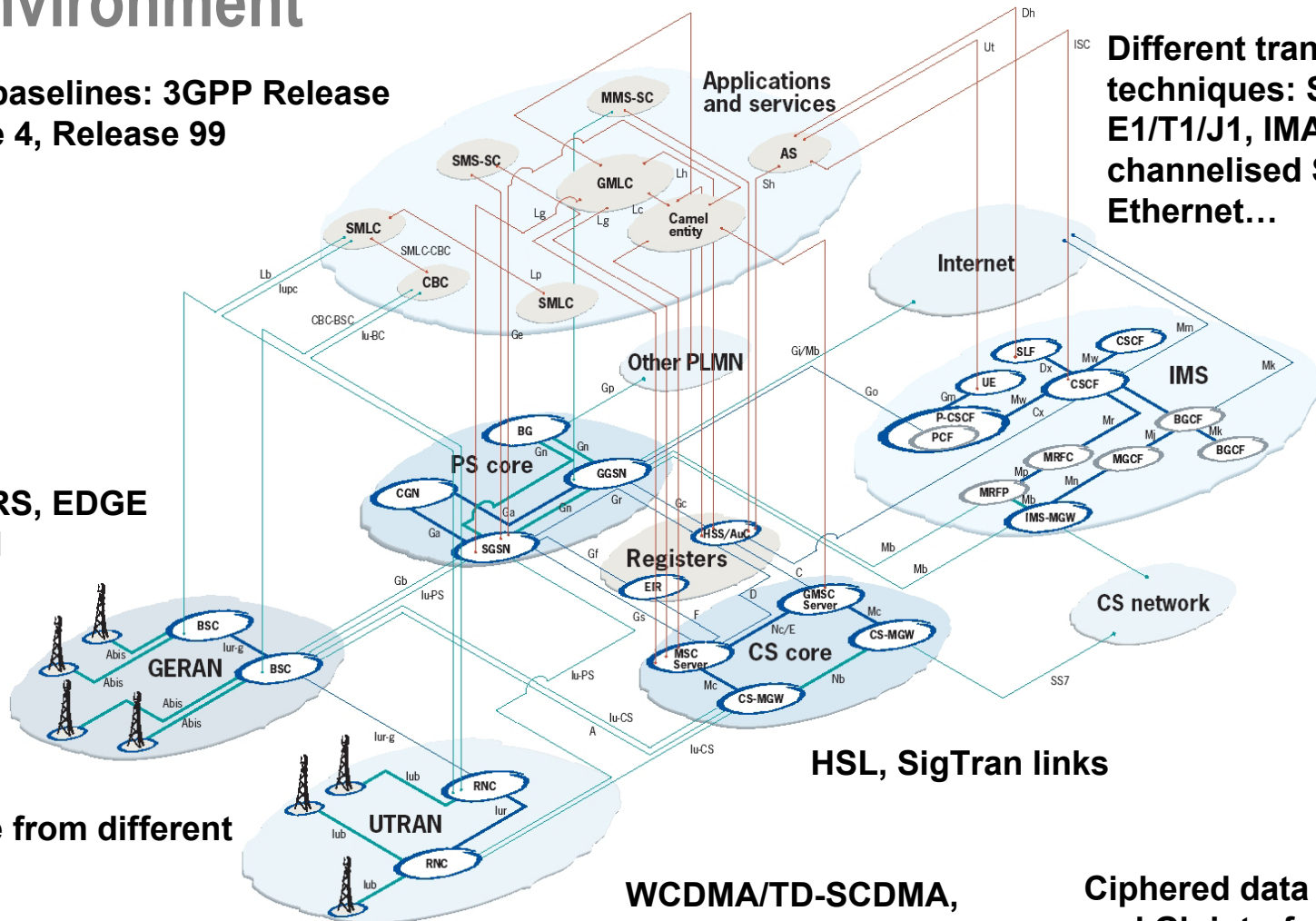# Increased complexity in the operating environment

Different baselines: 3GPP Release 5, Release 4, Release 99

Different transportation techniques: STM-1/OC-3, E1/T1/J1, IMA, STM-4, channelised STM-1, Ethernet…

GSM, GPRS, EDGE in GERAN

RAN/Core from different vendors

IP-RAN

WCDMA/TD-SCDMA, HSDPA in UTRAN

HSL, SigTran links

Ciphered data in Iub and Gb interfaces

Network signalling – valuable source of information for operating the network

> Based on the signalling data, you can get an accurate and reliable view on the network behaviour to plan your operations and correct any errors:

- Overall view on network performance based on Key Performance Indicators.

- Faster to resolve customer complaints with effective call tracing.

- Network tuning and troubleshooting from installation and roll-out stage to full operation with detailed level of information.

- Testing & validation of network elements and complete systems (e.g. interoperability testing).

NetHawk M5 – what can it do?

> Provides the means to analyse in real-time the signalling to learn on network behaviour and to solve problems in the network operation.

> Meets requirements for monitoring and analysis of modern telecommunications networks in terms of:

- Multi-technology and multi-manufacturer support,

- Support for latest standards and specifications,

- Support for a variety of transportation techniques,

- Intelligent applications for data refinement,

- Distributed monitoring,

- Flexibility in product platform and structure to match the needs of different user groups.

Network monitoring and troubleshooting with the NetHawk M5

> Detailed level protocol monitoring, Call & Session Analysis and Key Performance Indicators with powerful filtering capabilities in real-time as well as in offline.

> You can turn any standard PC (laptop, desktop or industrial PC) to a powerful monitoring tool depending on the type of use.

> Simultaneously multiple UTRAN, GERAN and Core network interfaces:

  – 12 x STM-1/OC-3,

  – 32 x E1/T1/J1,

  – 12 x Ethernet links, or

  – A combination of these with six NetHawk Adapters.

Protocol monitoring

> A wide range of 3G/2G protocols can be monitored.

From overall view to full details.

Filters to focus on interesting piece of information.

Also statistical information (counters) available.

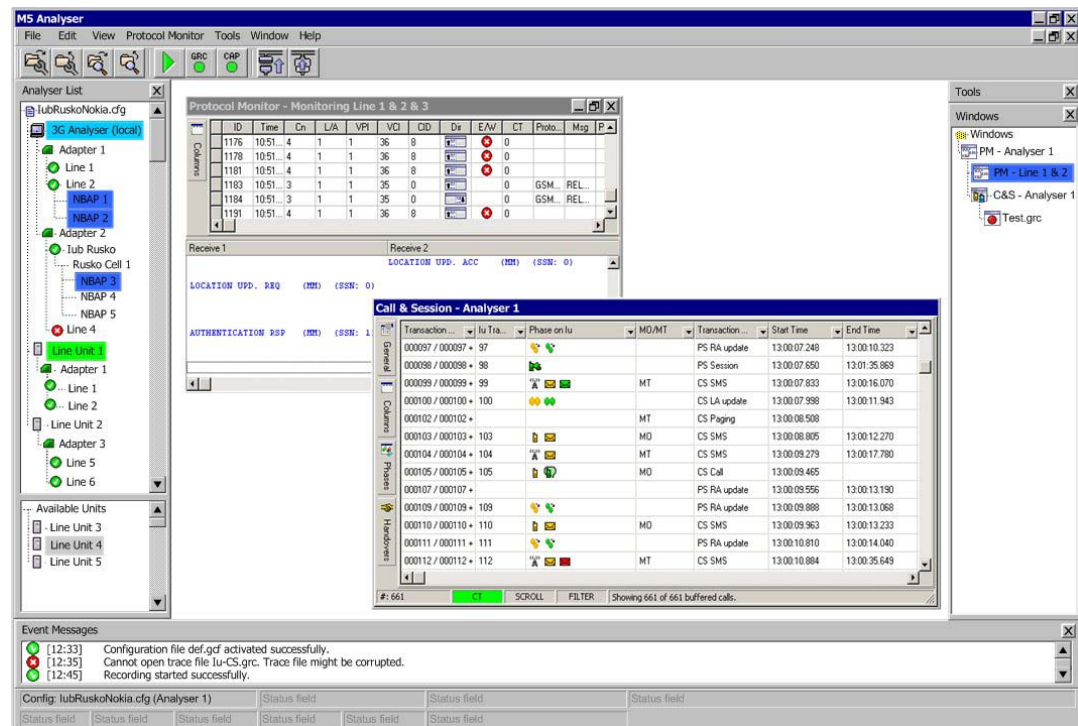**Multiple analysis sessions simultaneously.**
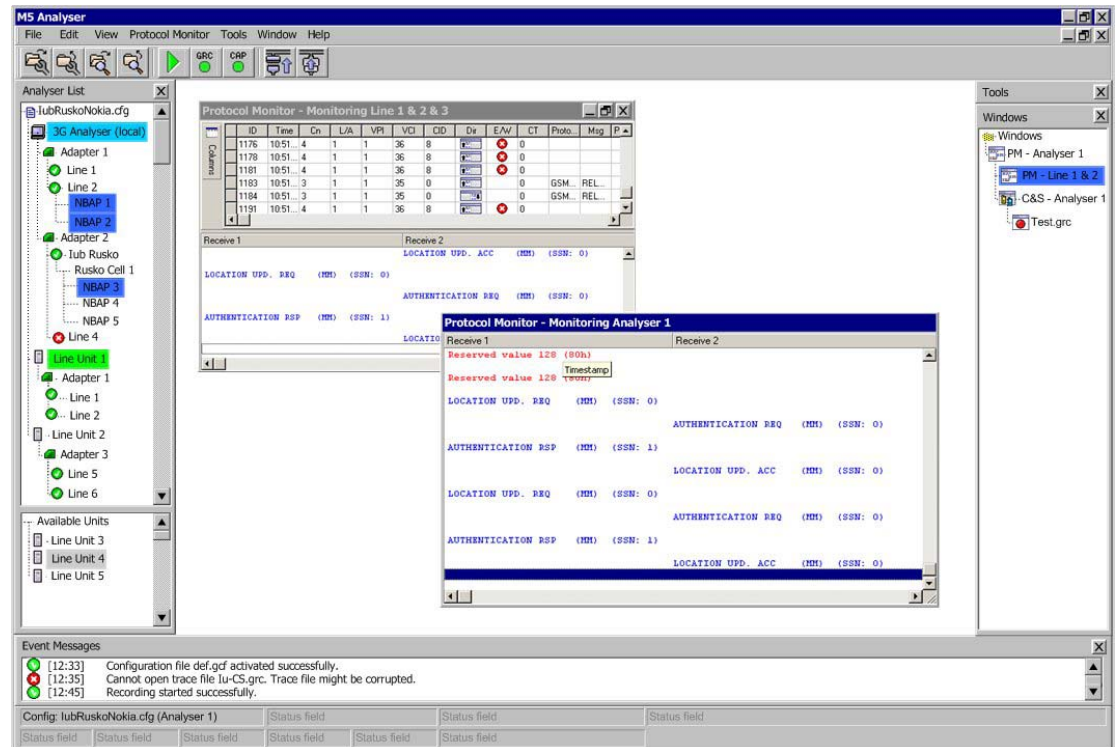
Call & Session Analysis

> Advanced tracing and filtering of CS calls, PS sessions, handovers and other transactions.

You can follow them as they evolve over the network interfaces in real-time with phase information.

Overall view and detailed decodings for root-cause analysis.

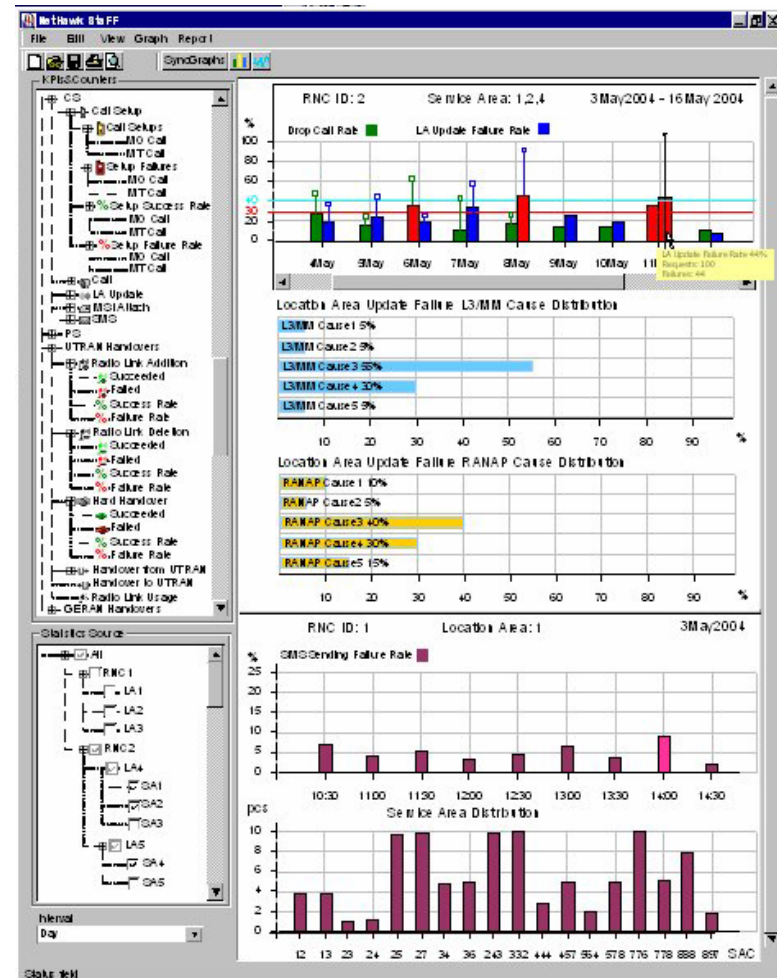**Filtering according to common subscriber identifiers or various other parameters.**

Key Performance Indicators

> Statistical information graphically illustrated on the most important parameters affecting the network performance (e.g. call/session drop rate or handover success rates).

Additional capacity with distributed use

> With a distributed use of the NetHawk M5, you can increase the line capacity even further, add performance or allow remote monitoring.
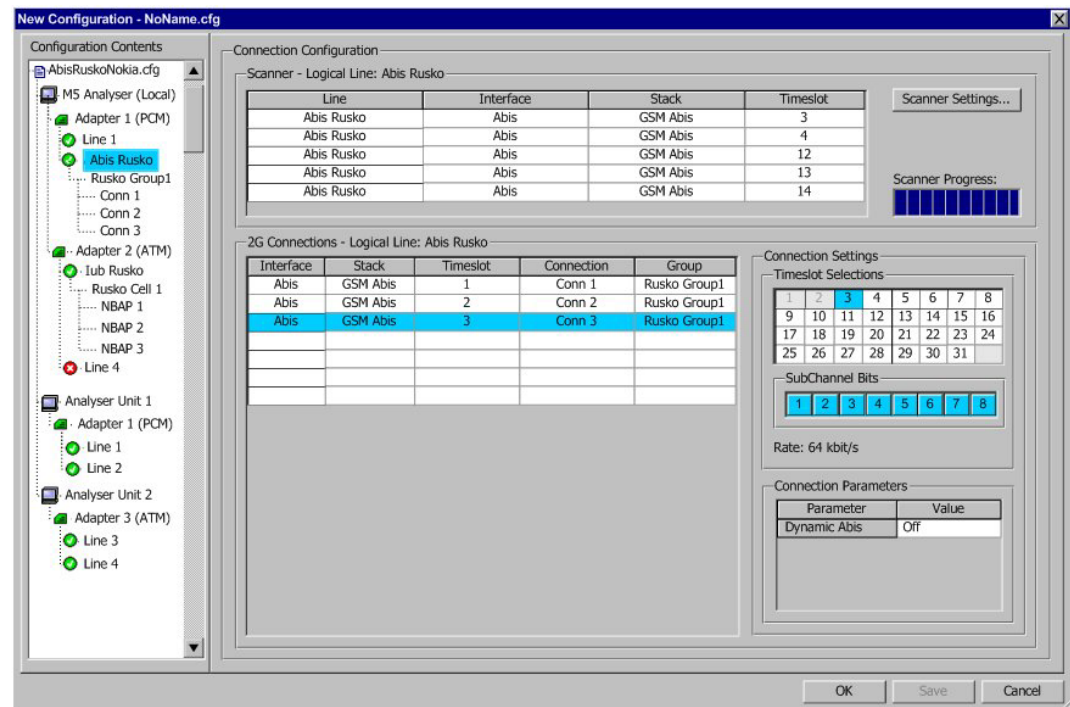
Aid to the user in configuration

> The NetHawk M5 is ready for monitoring quickly as minimum time is needed for configuration of the tool.
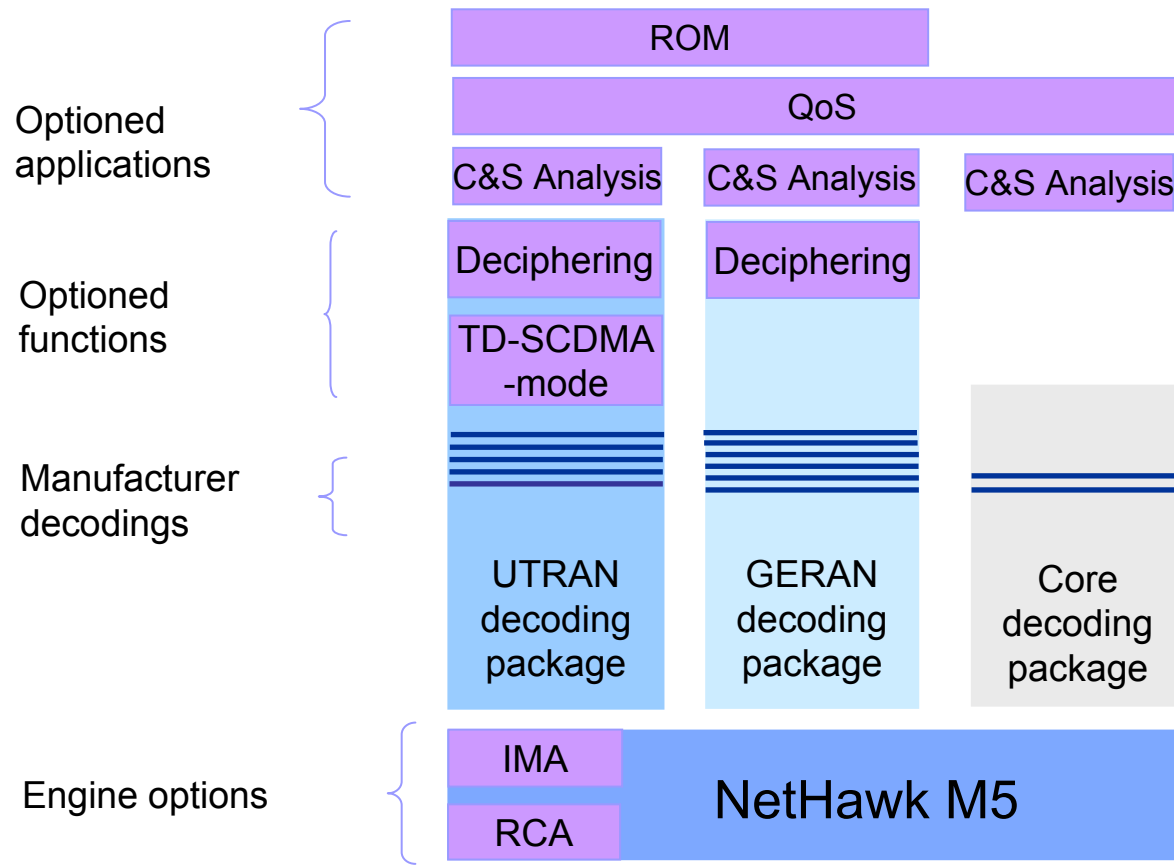
Line scanning to provide the connections for monitoring with stack and parameter information.

Automatic configurability including dynamic Iub and Abis interfaces.

Flexible product platform and structure

> Select protocol decoding packages, applications and other options according to your need:

NetHawk Adapters

NetHawk D3 Adapter

One full-duplex STM-1/OC-3

NetHawk NAP Adapter

Two bi-directional E1/T1/J1

NetHawk N3(i) Adapter

One full-duplex STM-1/OC-3

NetHawk D5 Adapter

8 bi-directional E1/T1/J1 links
(PCM, ATM, IMA)

NetHawk D4 Adapter

Two optical/electrical Ethernet

NetHawk N2 Adapter

One bi-directional E1/T1/J1

NetHawk D6 Adapter

Two full-duplex STM-1/STM-4

Why to choose the NetHawk M5?

> Allows monitoring of both 3G and 2G networks with key applications in real-time/offline.

> Both statistics and detailed decodings.

> Benefits of distributed monitoring – load sharing, remote control and more users can access the tool.

> In the front row of development – e.g. Release 5 and HSDPA already now – you can continue the use of NetHawk M5 long time through network evolution.

> New functionalities with software updates – no need to update the hardware.

> Fits the needs of different user groups with flexible product structure and platform.