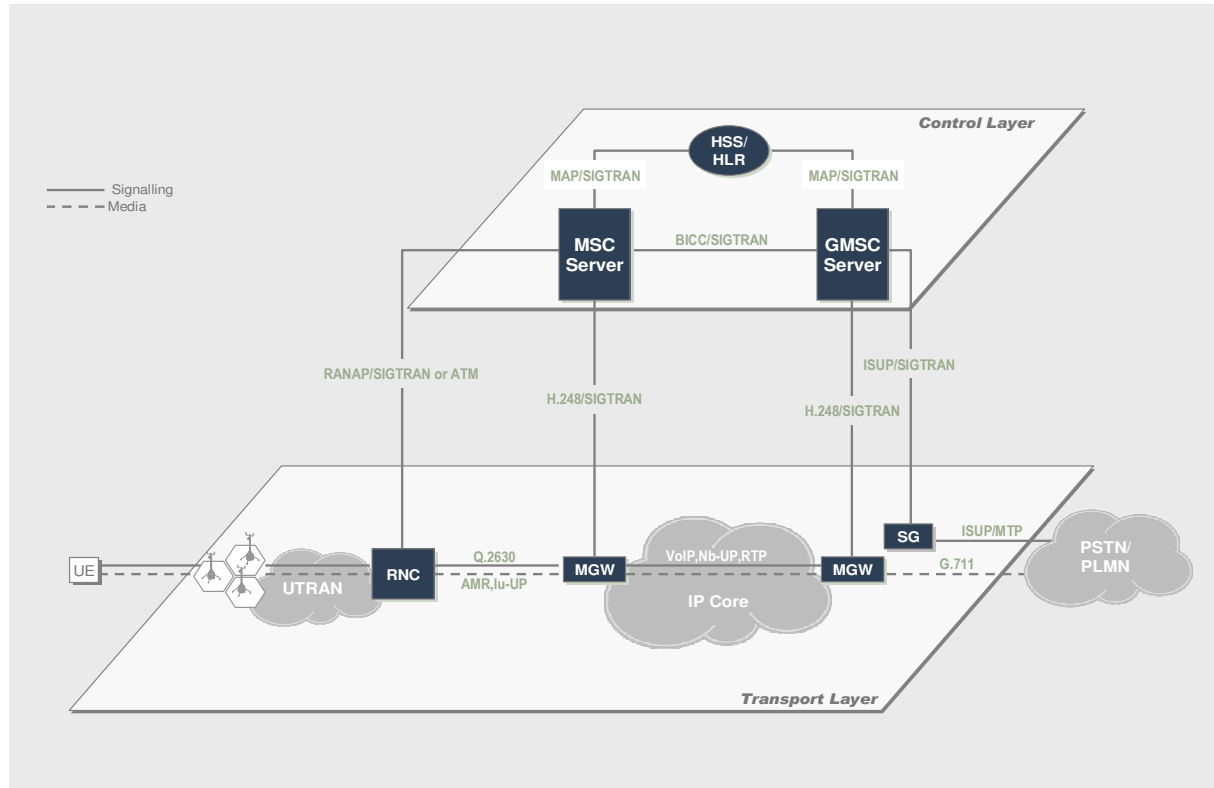


# MSS Core Network Overview

An **Engineer's** Guide to the **Mobile Soft-Switched, IP Core Network and SIGTRAN**  
2 Days

## Business Value

You will get a most detailed, up-to-date overview on MSS System Design, MSC-Sever, MGW, BICC, H.248, SIGTRAN and detailed Signalling Procedures. Plus our extensive training experience on the subject within R&D departments from both vendors and operators.



## Who should attend

The course is designed for engineers in Software-Design, Network-Integration/Verification, End-to-End Planning/Performance Testing, and other technical areas. If you demand details and solid technical know-how in the IP-based MSS Architecture, Protocols and Procedures, start with this course.

## Presentation/Exercises

Instructor presentation (whiteboard-60%, transparencies-25%, powerpoint-15%) with the Futurenetz active learning tools. You get a text-book/work-book where you fill out pictures with information during lecture.

Text-based exercises are included.

3D-Memory-Map is a 3-D model of the network used to enhance your understanding with its hands-on, activity-based approach. This method has been proven successful over the last 6 years.

## Content Summary

- 3GPP R'99 Review**  
***A compact UTRAN Overview with a focus on the Iu Interface.***  
 Quick overview of UTRAN with a functional understanding of the protocols and signalling procedures used for Radio Access. A detailed traffic case will show how RABs are established. Emphasis is on all Iu Protocols.
  - UTRAN Architecture and WCDMA
  - RRC Protocol and State Model
  - RAB Establishment
  - RANAP, Q.2630, Iu-UP and AMR
- H.248-GCP**  
***Media GateWay and the H.248 Protocol in detail***  
 You will get details on MGWs and the way they are controlled using the H.248 protocol over the Mc Interface.
  - Softswitching Overview, MSC Server, MGW
  - H.248 Commands, Contexts, Terminations and Descriptors
- BICC**  
***Bearer-Independent-Call Control and IPBCP***  
 You will learn about the BICC protocol applications that go beyond ISUP, and how Bearers are set up using the IP Bearer Control Protocol.
  - CSFs, CCUs, BNC
  - Backward and Forward Bearer Establishment Traffic Flows
  - BICC Tunneling and IPBCP
- Bearer Independent CS Network**  
***Softswitching in the CS Domain with IP Transport***  
 Complete UE to UE traffic flow with BICC, H.248, IPBCP, RANAP, Q.2630, Iu-UP and Nb-UP with Transcoder-Free-Operation and SRNS Relocation.
  - MSC Server, Nc, Nb and MC Interfaces
  - UE-UE Call with OoBTC and TrFO
  - SRNS Relocation
- SIGTRAN**  
***SS7 over IP***  
 Details on how SS7 protocol is transported over IP.
  - Signalling Gateways and SIGTRAN Architecture
  - SCTP, M2UA, M2PA, M3UA and SUA

## Contact

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