5G Broadcast – new era of Media delivery
FeMBMS : LTE/EPC Architecture
FeMBMS : EPC with HPHT Architecture

**Core Network**
- BM-SC
- MBMS-GW
- MME

**Access Network**
- eNB
- S-GW
- P-GW

**Broadcast**
- BM-SC
- MBMS-GW

**Unicast**
- MME

**Internet**
- Content Provider

**COMPANY RESTRICTED**
FeMBMS: EPC with HPHT Architecture

- **Core Network**
  - R&S® BSCC
  - BM-SC
  - MBMS-GW
  - MCE
  - MME
  - S-GW
  - P-GW

- **Access Network**
  - R&S® FeMBMS Tx
  - BM-SC
  - MBMS-GW
  - MCE

- **Content Provider**
  - Broadcast
  - Internet

- **UNICAST**
  - P-GW
  - S-GW

- **SM**
  - S5/S8
  - S11
  - S1-MME

- **SGi-mb**

- **SGi**

- **eNB**
5G Broadcast – How to make it real?

5G Broadcast All-In-One Core Network

- EPC
- R&S®BSCC
- FeMBMS Tx
- R&S®SDE900
- R&S®TCE901
- RF

xMB U-Plane

xMB C-Plane
World’s first LTE Broadcast (FeMBMS) SFN transmission

5G TODAY has successfully realised the world’s first dynamic single-frequency network (SFN) in combination with FeMBMS
HPHT LTE Broadcast – 5G Today makes it real!
World’s first HPHT FeMBMS transmitter on-air located at Wendelstein
5G TODAY

Current Status

- Frequency: 750 – 758 MHz
- Bandwidth: 5MHz (later 10MHz)

- Two transmitter sites:
  - Wendelstein
  - Ismaning
  - Inter-site distance 64km

- Equipment installed:
  - THU9evo in Wendelstein and Ismaning