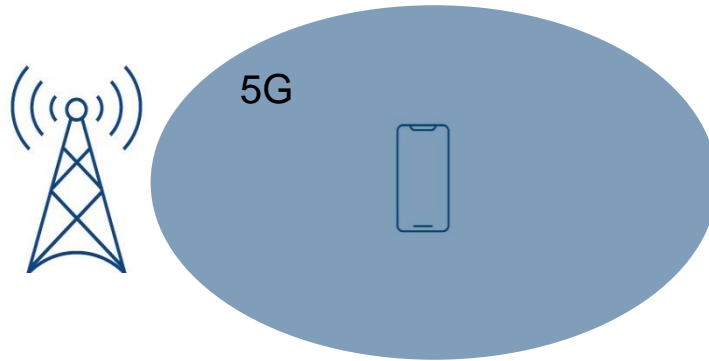


VoNR

- ▶ 5G SA Mode
- ▶ Successor of VoLTE
- ▶ Uses IMS as service enabler
- ▶ Ultra fast call setup time
- ▶ High quality Voice service

Procedure:

- ▶ UE registers to the 5G cell and internal CMX500 IMS Server
- ▶ User establishes a voice call with the UE
- ▶ The internal IMS Server set up the bearer with the 5G core
- ▶ Call is established in 5G
- ▶ The user can listen to the echo/loopback voice at the loudspeaker of the DUT

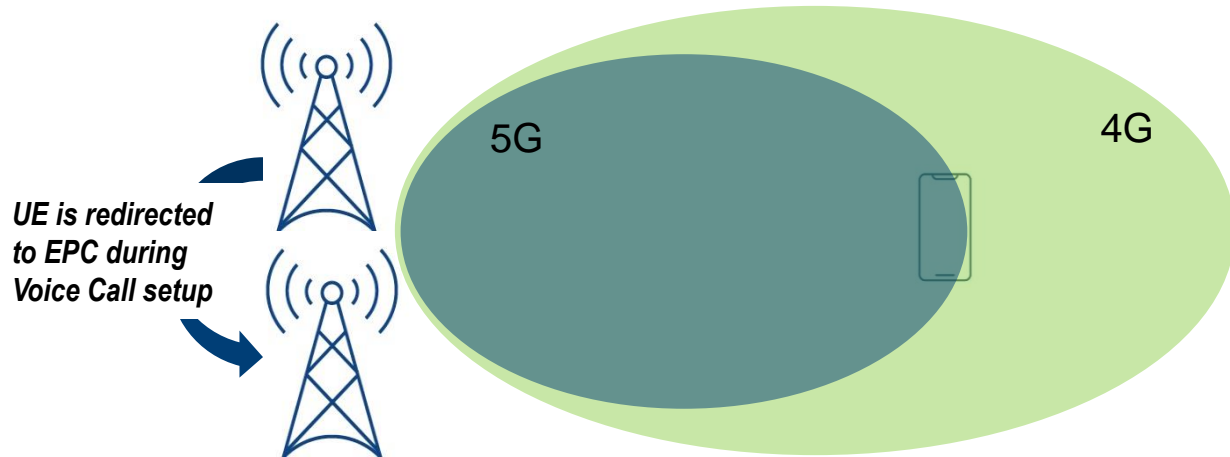


EPS FALLBACK

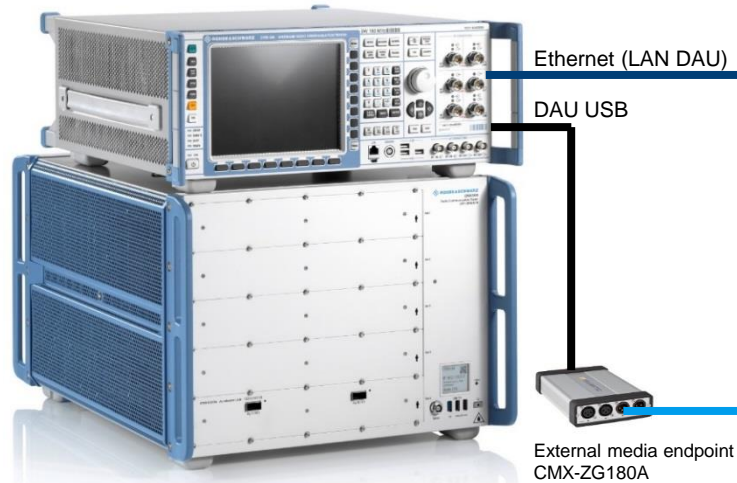
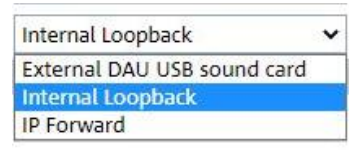
- ▶ Weak 5G coverage
- ▶ 5G cell not configured for VoNR calls
- ▶ Mobile device doesn't support VoNR calls
- ▶ Avoid handover during a call @ the cell edge

Procedure:

- ▶ UE registers to the 5G cell and internal CMX500 IMS Server
- ▶ User establishes a voice call with the UE
- ▶ The internal IMS Server tries to set up the bearer and the 5G core triggers the redirection to 4G
- ▶ After the redirection to 4G voice bearer setup continues / tracking area update happens and the VoLTE call is established
- ▶ The user can listen to the echo/loopback voice at the loudspeaker of the DUT



USE CASE: 5G AUDIO QUALITY TEST



Audio Analyzer

Ethernet interface

Audio via IP

Audio Analyzer

analog interface with e.g.
XLR connectors

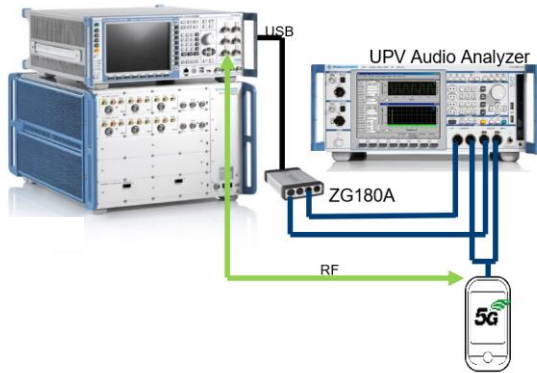
Audio via analog

Minimum Footprint Setup

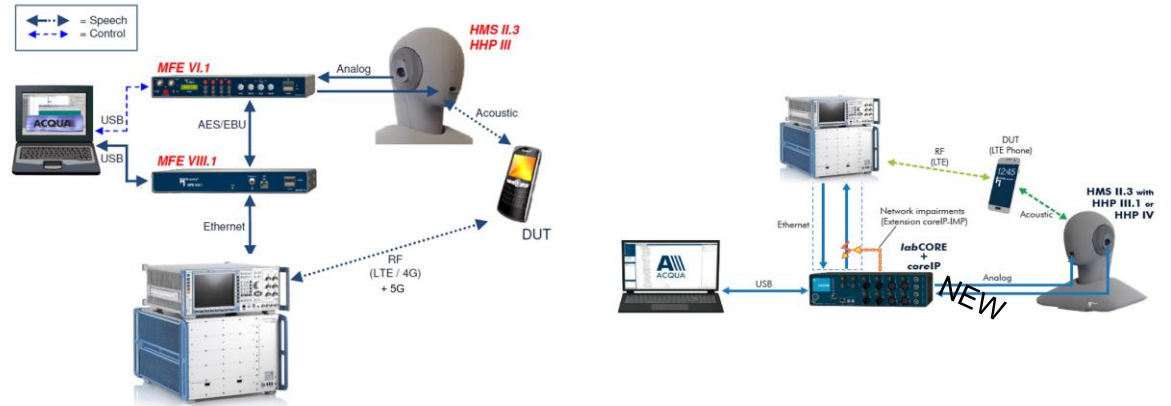
USE CASE: 5G AUDIO QUALITY TEST

Internal Loopback	▼
External DAU USB sound card	
Internal Loopback	
IP Forward	

Example Solution 1:



Example Solution 2:



POLQA test with R&S UPV- or other Audio Analyzers

VOICE OVER 5G – EVOLUTION, DEPLOYMENT, TECHNOLOGY AND TESTING ASPECTS

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