

Scope of multicast/broadcast for NR



Background

- In current SA2 study for multicast-broadcast (SP-190442), two groups or objectives are identified:
 - Multicast-broadcast services
 - Mapping to RAN would be **mixed mode**
 - Interaction with unicast, V2X, public safety,
 - TV video and radio services
 - Mapping to RAN would be **terrestrial broadcast**
 - Downlink-only, receive-only mode, free to air
- In this contribution, we present our views on the necessary radio components to support **mixed mode** in NR.

Main radio aspects

- Reliability:
 - Mechanisms for **feedback/retransmissions** should be studied to meet reliability requirements for different use cases.
- RRC states:
 - Support **CONNECTED mode for higher reliability** (feedback/retransmissions), IDLE/INACTIVE if required by massive connectivity.
- Interaction with unicast:
 - Introduce mechanisms for simultaneous operation of **unicast and multicast** in a serving cell.
- SFN support:
 - Target “**small area SFN**”, intra-DU or intra-CU (minimize spec impact). No new PHY channels.
- Multicast/unicast switching:
 - The multicast system should allow for **flexible multicast/unicast switching** (at the RAN node level) to carry multicast traffic.
- Service continuity:
 - Lossless mobility for both **change of serving cell** and **multicast/unicast switching**
- Support FR1/FR2, including unlicensed bands (with minimal changes)



Thank you

Follow us on: **f** **t** **in** **@**

For more information, visit us at:

www.qualcomm.com & www.qualcomm.com/blog

Nothing in these materials is an offer to sell any of the components or devices referenced herein.

©2018 Qualcomm Technologies, Inc. and/or its affiliated companies. All Rights Reserved.

Qualcomm is a trademark of Qualcomm Incorporated, registered in the United States and other countries. Other products and brand names may be trademarks or registered trademarks of their respective owners.

References in this presentation to “Qualcomm” may mean Qualcomm Incorporated, Qualcomm Technologies, Inc., and/or other subsidiaries or business units within the Qualcomm corporate structure, as applicable. Qualcomm Incorporated includes Qualcomm’s licensing business, QTL, and the vast majority of its patent portfolio. Qualcomm Technologies, Inc., a wholly-owned subsidiary of Qualcomm Incorporated, operates, along with its subsidiaries, substantially all of Qualcomm’s engineering, research and development functions, and substantially all of its product and services businesses, including its semiconductor business, QCT.