

5G STANDARDIZATION

STATUS UPDATE

Dr. Christian Hoymann, Ericsson Research

3GPP

EPISODE V

RETURN OF THE RELAY NODES

3GPP 5G TIMEPLAN



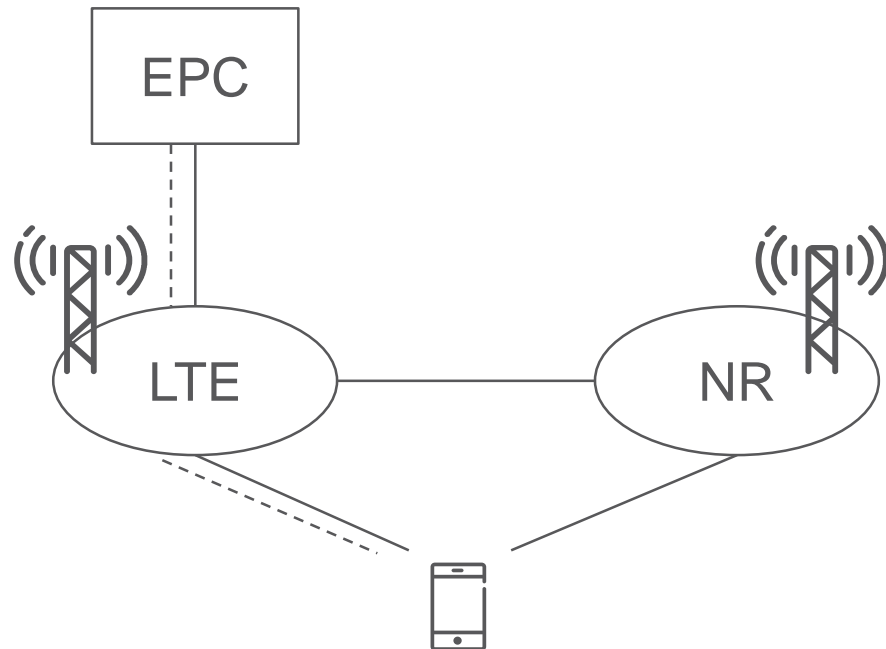
ACCELERATED 5G TIMEPLAN

ENDORSED IN [RP-170741](#)



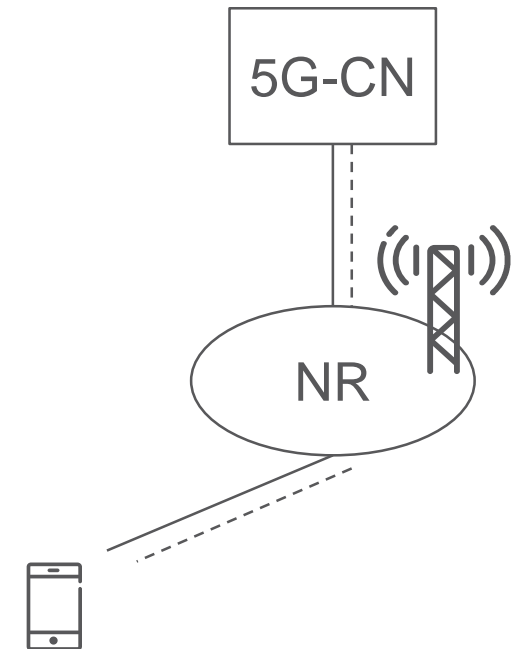
› Non-standalone NR

- Connected to Evolved Packet Core
- Target completion: **December 2017**



› Standalone NR

- Connected to 5G Core Network
- Target completion: **June 2018**



LTE EVOLUTION



RAN1-led (Physical Layer heavy)

- › High reliability
- › Internet of Things
- › Vehicle-to-everything Phase 2
- › Licensed-Assisted Access
- › Fixed Wireless Access
- › Coordinated Base Stations

RAN2-led (Radio Protocols)

- › Study Item on Aerials/Drones
- › LTE connected to 5G Core Network
- › Enh. positioning
- › Enh. Carrier Aggregation
- › Enhancements for Video streaming

RAN3-led (Architecture)

- › Central- / distributed unit split

NR PHASE 1 WORK ITEM

RP-170847



- › Targeting eMBB and URLLC
 - Requirements in TR38.913
- › Frequency ranges up to 52.6 GHz
 - 3.5GHz, 28GHz,
 - 39GHz (US), 4.4GHz (Asia)
- › Standalone
 - + LTE-NR Dual Connectivity
 - + NR-NR Carrier Aggregation
- › (dynamic) TDD & FDD
 - + full/flexible duplex
- › NR/LTE co-channel coexistence
 - DL & UL
- › OFDM waveform
- › Mini-slots
- › Multi-antenna
- › 3-state state machine
- › Higher layer CU/DU split
- › Network slicing

NR PHASE 2 STUDY ITEMS

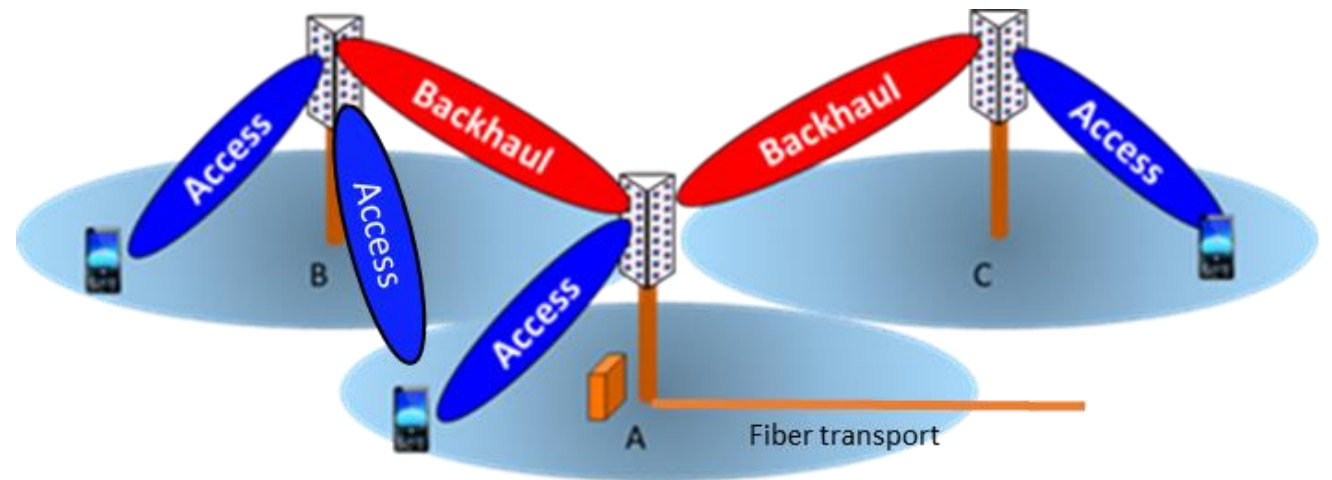


To start in Q3:

- › Operation in unlicensed spectrum
 - Standalone and licensed-assisted
 - 5GHz, 3.5GHz, 60GHz
- › Non orthogonal multiple access
- › Non-Terrestrial Networks
 - Satellite link channel modeling

To start later:

- › Lower Layer Split
- › eV2V evaluation
 - >60GHz sidelink channel modeling
- › Integrated Access Backhaul (RP-170831)





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