





Uplink data is flowing on the default bearer.

UE measures 5G-AN cell signal quality

5G signal quality is reported back to 4G eNB.

The 4G eNodeB sends an RRC Connection Reconfiguration to the UE. The message assigns 5G radio resources to the UE.

Extract the 5G NR RACH information parameters that will be needed to access the 5G network.

Extract the C-RNTI assigned for 5G access.

The UE signals the receipt of the RRC Connection Reconfiguration to the LTE eNodeB.

UE acquires the 5G-NR Primary Synchronization Signal.

UE acquires the 5G-NR Secondary Synchronization Signal.

UE acquires the 5G-NR Broadcast Channel.

The UE initiates the random-access procedure with the 5G gNodeB. Non-contention based random-access will be attempted if the preamble assignment was received in the RRC Connection Reconfiguration message.

The 5G secondary node gNodeB responds with an RA Response. The message also carries an uplink grant for Msg3 transmission.

NR PDCCH signals downlink resource block allocations for PDSCH

The eNodeB transmits the PDSCH.

gNodeB assigns uplink resource blocks.

The UE receives the DCH 0_0 grant and transmits the PUSCH in the uplink direction.

Data is now being directly routed from the 4G SGW to the 5G gNodeB.

Uplink data is being transported from the 5G gNodeB to the 4G SGW.

