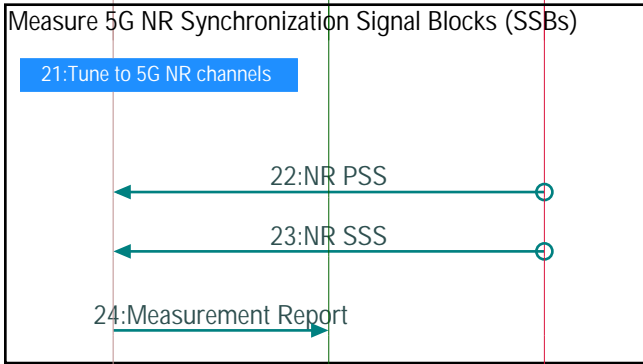


19:Data

Downlink data is flowing on the default bearer.

20:Data

Uplink data is flowing on the default bearer.

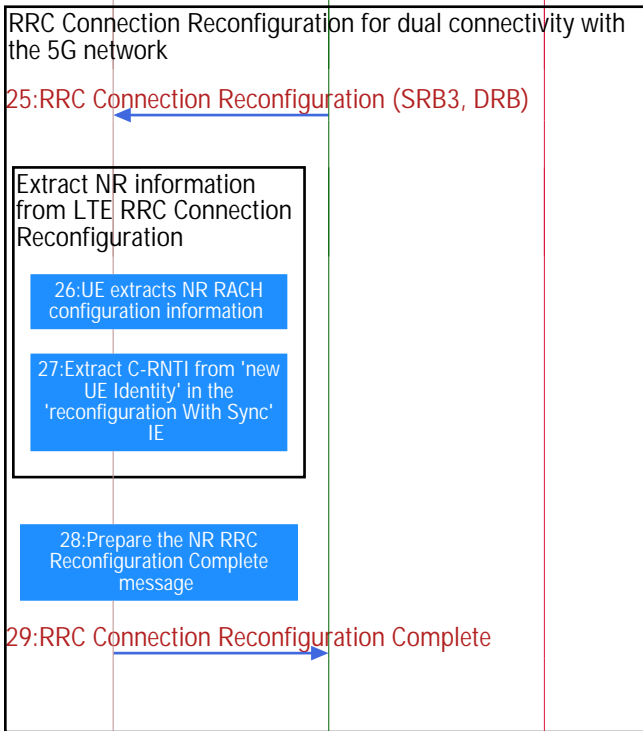


Initiate measurement of 5G NR channels specified in the Measurement Objects received in the RRC Connection Reconfiguration. These measurements are scheduled during measurement gaps.

UE acquires the 5G-NR Primary Synchronization Signal.

UE acquires the 5G-NR Secondary Synchronization Signal and measures the signal quality.

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



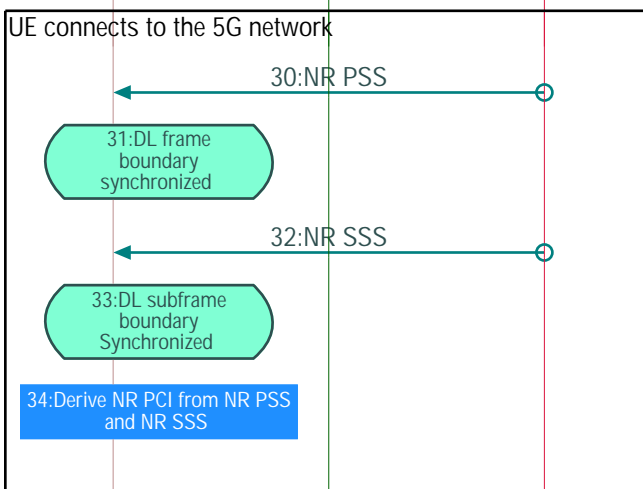
The 4G eNodeB sends an RRC Connection Reconfiguration to the UE. The message assigns 5G radio resources to the UE.

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

Extract the C-RNTI assigned for 5G access.

This message will be sent via the LTE RRC Connection Reconfiguration Complete message.

The UE signals the receipt of the RRC Connection Reconfiguration to the LTE eNodeB. The message carries the "NR RRC Reconfiguration Complete" message meant for the SN-gNB.



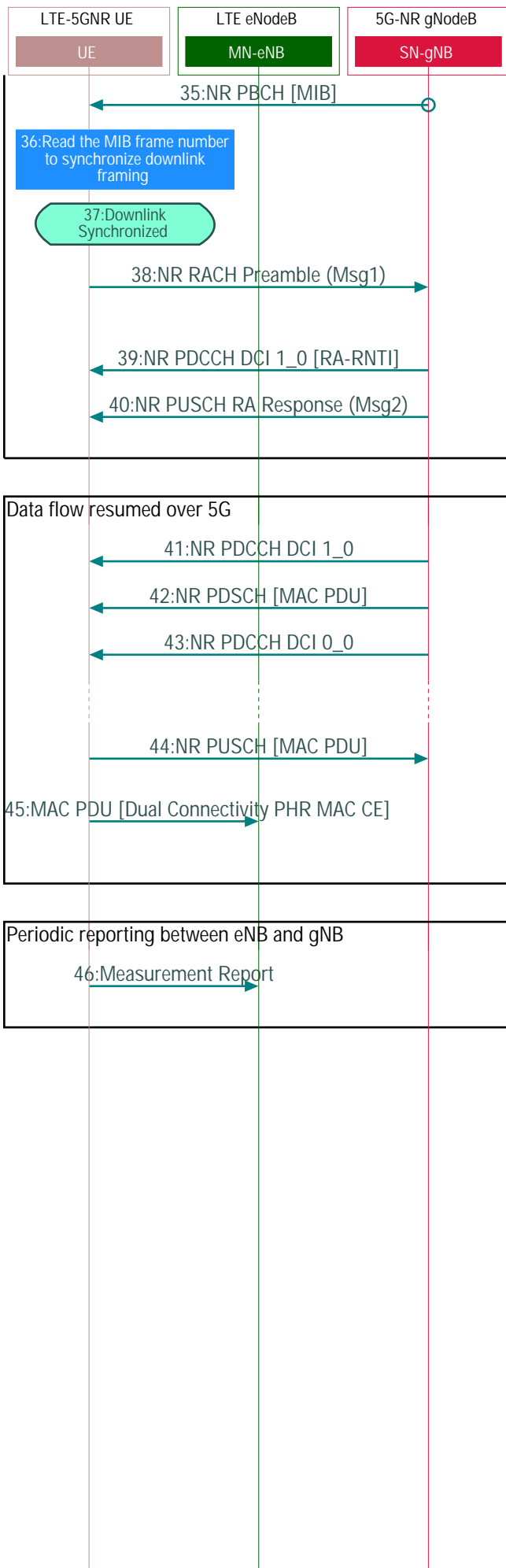
UE acquires the 5G-NR Primary Synchronization Signal.

The UE is synchronized with the NR downlink frame boundary.

UE acquires the 5G-NR Secondary Synchronization Signal.

The UE is synchronized with the NR downlink subframe boundary.

The UE derives the NR Physical Cell Identifier from the NR PSS and NR SSS.



UE acquires the 5G-NR Broadcast Channel.

The UE has achieved complete downlink synchronization.

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.

NR PDCCH signals downlink resource allocation for the RA Response.

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.

Periodically, the UE reports the Power Headroom to the the MN-eNB. The PHR MAC CE contains the power headroom for the cells on the MN-eNB and SN-gNB cells.

The UE reports measurements to the MN-eNB. The measurements include results from 5G NR cells.