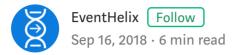
5G non-standalone access

Signaling flow for 5G access via LTE-5G NR dual connectivity (EN-DC)





Updated on March 15, 2019

Transition to 5G is being accelerated by enabling support for 5G bearers in the existing 4G-LTE infrastructure.

5G mobile broadband services will be available to users in a primarily 4G network via mobile terminals that support dual connectivity to 4G LTE and 5G NR base stations at the same time.

To enable dual connectivity, the 4G infrastructure will support connecting to a 5G NR base station (gNodeB). The

UE Capability Enquiry	MN-eNB → UE
UE Capability Information LUE-MRDC-Capability	UF → MN-eNB
LSupportedBandListNR-r15	UE → MIN-ENB
-SupportedBandListNK-r15	
UE Capability Info Indication	MN-eNB → MME
AS Security Mode Command	MN-eNB → UE
AS Security Mode Complete	UE → MN-eNB
RRC Connection Reconfiguration	
LAttach Accept	
LActivate Default EPS Bearer Context Request	MN-eNB → UE
LMeasConfig	MIN-6INR → OF
L MeasObjectToAddModList	
L _{MeasObjectNR-r15}	
RRC Connection Reconfiguration Complete	UE → MN-eNB
Attach Complete	
LActivate Default EPS Bearer Accept	UE → MME
Measurement Report	
LMeasResults	UE → MN-eNB
SgNB Addition Request	MN-eNB → SN-gNB
SgNB Addition Request Acknowledge	
LCG-Config	SN-gNB → MN-eNB
RRC Connection Reconfiguration for 5G-NR Bearer	
LCG-Config	MN-eNB → UE
RRC Connection Reconfiguration Complete for 5G-NR Bearer	
LNR RRCReconfigurationComplete	UE → MN-eNB
SgNB Reconfiguration Complete	141 NO - 61/
LNR RRCReconfigurationComplete	MN-eNB → SN-gNB

SgNB Addition Request

MN-eNB → SN-gNB

TS 36.423

/Group Name	Present	ce	
essage Type	М		
eNB UE X2AP ID	М	_	
R UE Security Capabilities	М	_	
NB Security Key	М	_	
NB UE Aggregate Maximum Bit Ra	ite M		
elected PLMN	0		
andover Restriction List	0	_	
RABs To Be Added List E-RABs To Be Added Item [E-RAB			
	Presence		
E-RABs To Be Added Item [E-RAB			
E-RABs To Be Added Item [E-RAB IE/Group Name	Presence		
E-RABs To Be Added Item [E-RAB IE/Group Name E-RAB ID	Presence M		
E-RABs To Be Added Item [E-RAB IE/Group Name E-RAB ID DRB ID	M M		
IE/Group Name E-RAB ID DRB ID EN-DC Resource Configuration	M M M		
E-RABs To Be Added Item [E-RAB IE/Group Name E-RAB ID DRB ID EN-DC Resource Configuration CHOICE Resource Configuration	M M M		Presence
E-RABs To Be Added Item [E-RAB IE/Group Name E-RAB ID DRB ID EN-DC Resource Configuration CHOICE Resource Configuration PDCP present in SN	M M M M		Presence M

Non-standalone EN-DC signaling details

5G Non-Standalone Videos

Now that we have covered the 5G Non-Standalone session setup flow. Let's review what we have learned in the following videos.



Overview of the Non-Standalone Access (NSA) Architecture

Demystifying 5G - How does 5G NR devices identify the ne...

5g 5g Network 5g Wireless Lte 4g Lte

Discover Medium

Welcome to a place where words matter. On Medium, smart voices and original ideas take center stage with no ads in sight. Watch

Make Medium yours

Follow all the topics you care about, and we'll deliver the best stories for you to your homepage and inbox. Explore

Become a member

Get unlimited access to the best stories on Medium — and support writers while you're at it. Just \$5/month. Upgrade

About Help Legal