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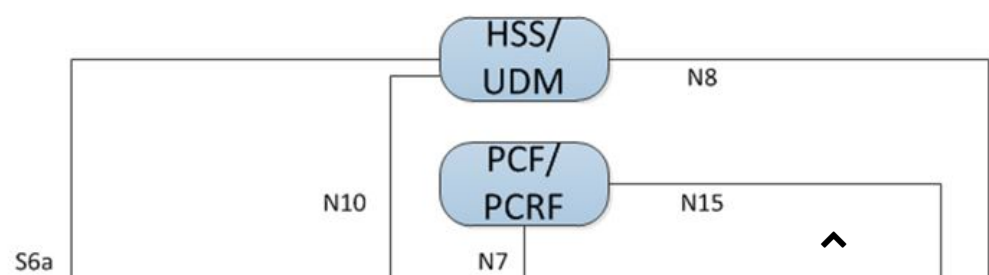
## 5GC, EPC interworking without N26 Interface

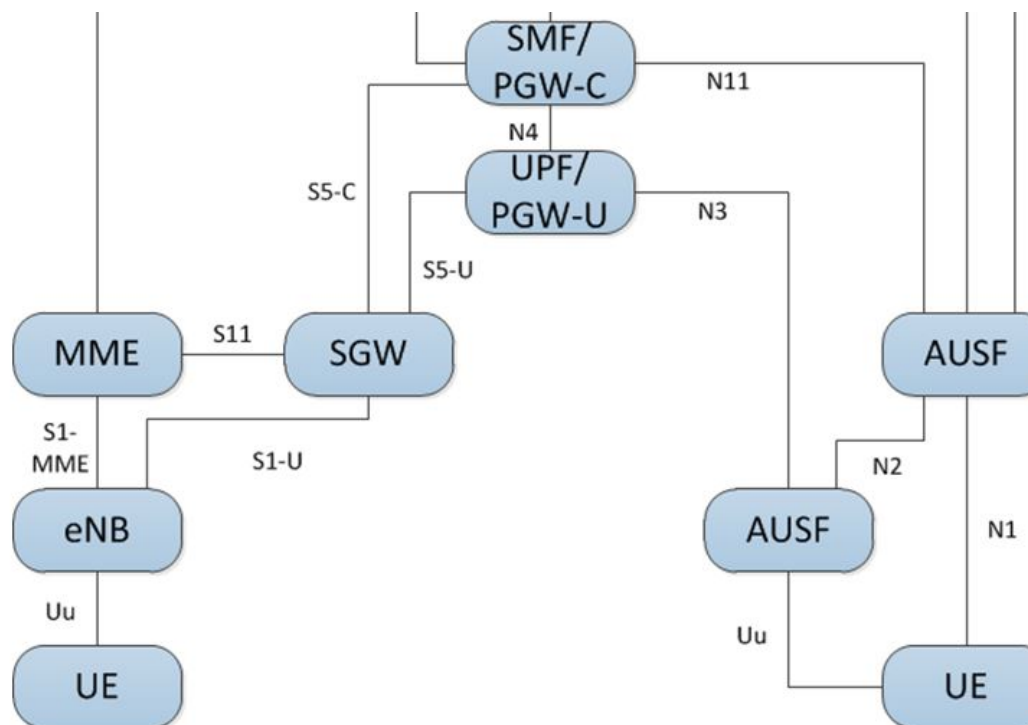
## Inter-working Concepts

### Single Registration Mode:

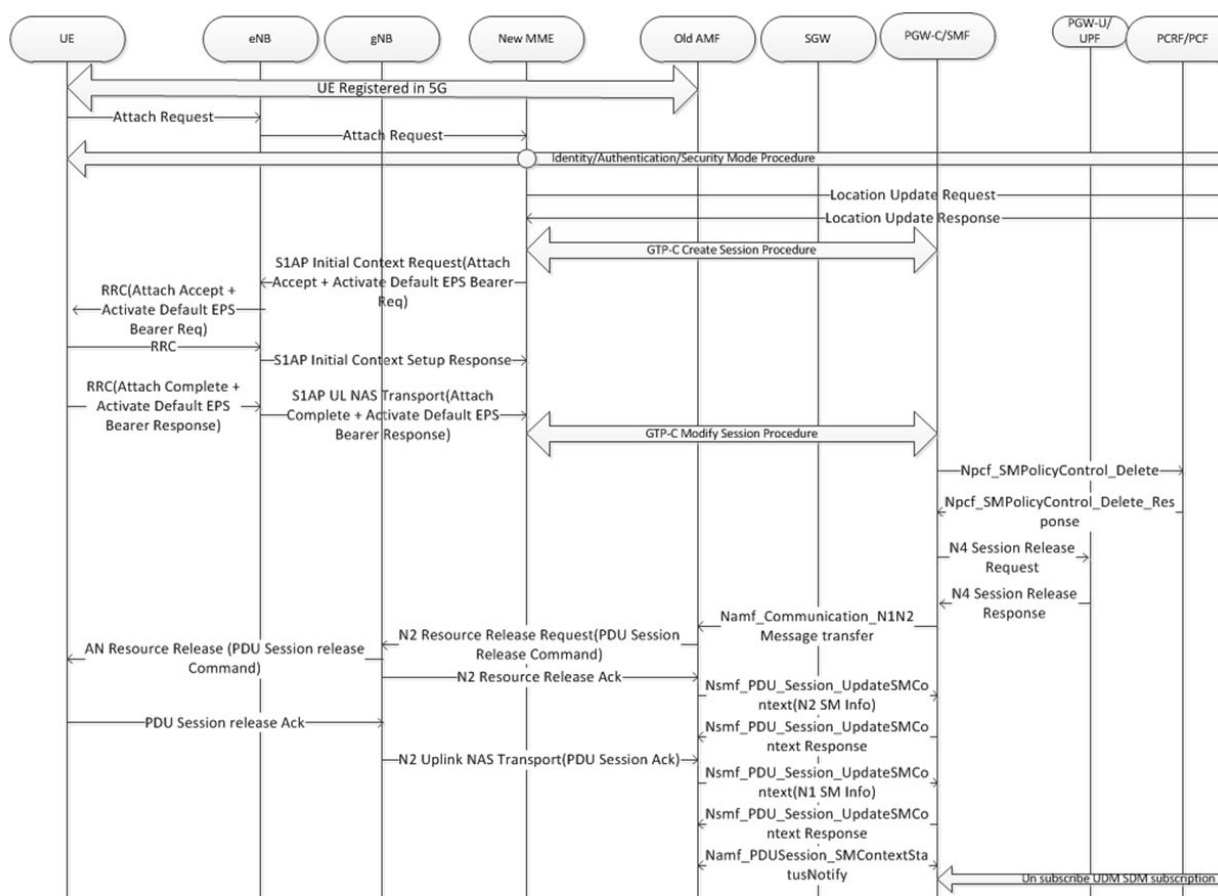
- ### Dual Registration mode:

- ## Inter-working architecture without N26 interface





### 5G to EPS mobility without N26 interface flow

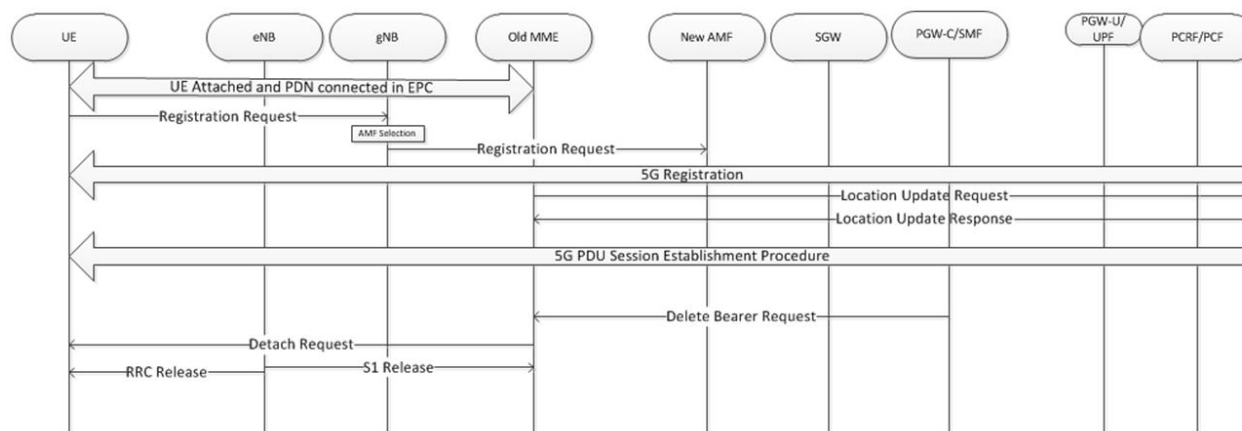


### Message flow steps



- Initially UE is registered to 5GC and establishes the PDU session.
- In order to move to EPS system, UE triggers Attach request(to preserve IP address) to EPC.
- Alternatively UE sends a Tracking area Update which fails and then UE initiates an Attach procedure case there is no IP address preservation.
- Single Registered mode UEs provide a EPS-GUTI derived from 5GC-GUTI if available else uses IMSI.
- Dual Registered mode UEs provide 4G GUTI(if allocated earlier) with attach request.
- In PDN connectivity request, UE sends Request type as "Handover" to indicate that it is moving from EPS.
- If Request Type is Handover and previous node is 5G AMF then MME is configured to send a location request to HSS/UDM to tell them not to cancel Old AMF registration, as UE may move back to 5GS.
- After successful Attach and PDN connection PGW-C/SMF allocates same IP address as the 5GS.
- And PGW-C/SMF initiates UE De-Registration and PDU Session release from 5GS.

### EPS to 5G mobility without N26 interface flow



### Message flow Steps

- Initially UE is Attached to EPC and establishes the PDN Connection.
- In order to move to 5G system, UE triggers Registration and PDU session procedure in 5GS.
- In single registration mode, UE provides Registration Type as "mobility Registration update" and provides GUTI derived from 4G-GUTI.
- UE in Dual Registration mode Provides Registration type as "initial registration" along with a native or SUPI.
- UE will include, NSSAI from current serving PLMN.
- AMF supports interworking with EPC, so it treats this as initial registration and skips PDU session synchronization with SMF.
- If UE is moving in step 1, then AMF updates UE location in HSS/UDM and tells them not to cancel the registration for the UE if any by setting ULR-Flags.

- During PDU session establishment with 5GS, UE indicates “Existing PDU session” as Request Type to the IP address.
- After Successful Registration and PDU session establishment, PGW-C triggers the PDN connection and detach of the UE from EPS.

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### Prasanna ([Http://in.linkedin.com/pub/prasanna-sahu/29/257/91a](http://in.linkedin.com/pub/prasanna-sahu/29/257/91a))

I am Prasanna Sahu. I live in Dublin Ireland. I work in 3gpp wireless technology UMTS and LTE and 5G. I love Photography, painting. Know more about me: <http://in.linkedin.com/pub/prasanna-sahu/29/257/91a> See my photographs: <http://www.flickr.com/photos/24986299@N05/>



### prasanna (<http://in.linkedin.com/pub/prasanna-sahu/29/257/91a>)

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Vikas

Posted on 9:27 am - Apr

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