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# 5G NR SDAP (Service Data Adaptation Protocol)

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### SDAP:

- SDAP stands for **Service Data Adaptation Protocol**.
- It is a layer of 5G NR radio protocol stack.
- It is placed the top of the **PDCP** Layer (for user plane) in the Radio Protocol Stack in 5G NR.

### Services provided to upper layers :

The SDAP sublayer provides its service to the user plane upper layers. i.e. transfer of user plane data.

### Services expected from lower layers :

An SDAP entity expects the following services from lower layers:

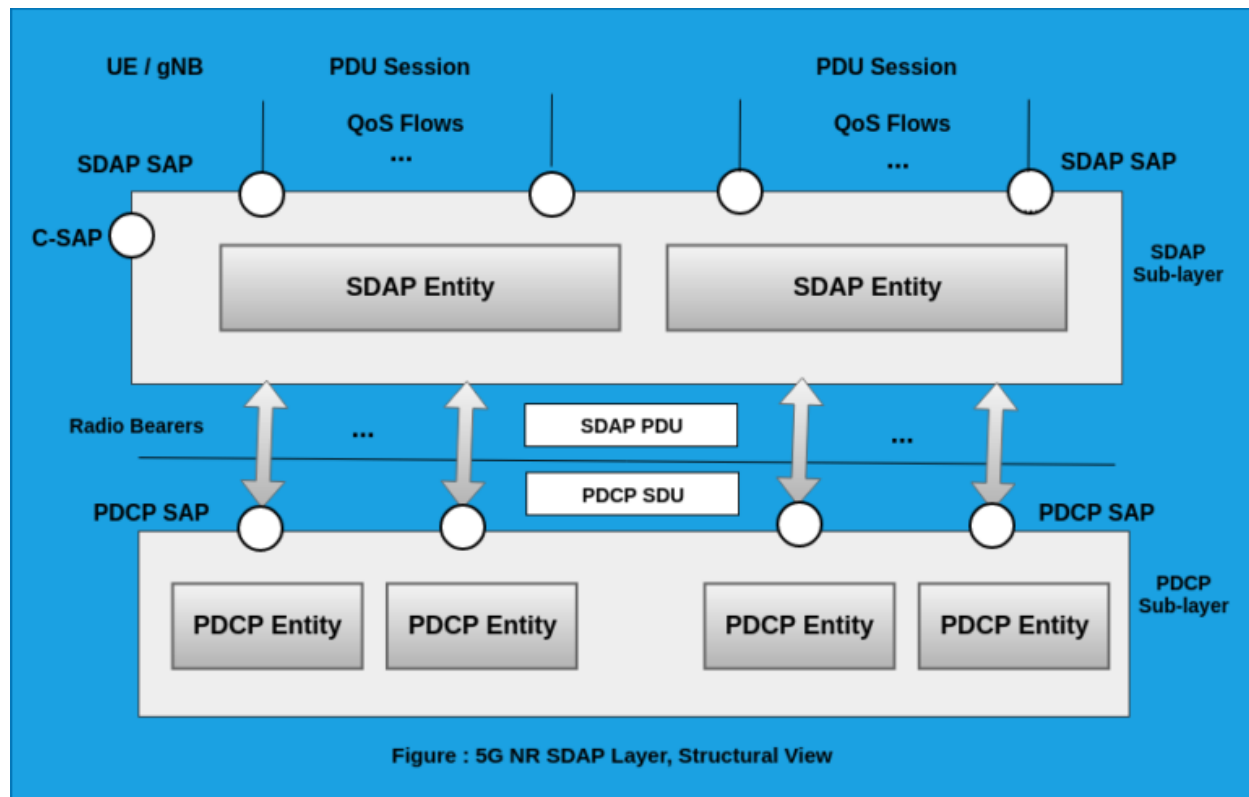
- user plane data transfer service
- in-order delivery except when out of order delivery is configured by RRC (3GPP TS 38.331)

### The main services and functions of SDAP are :

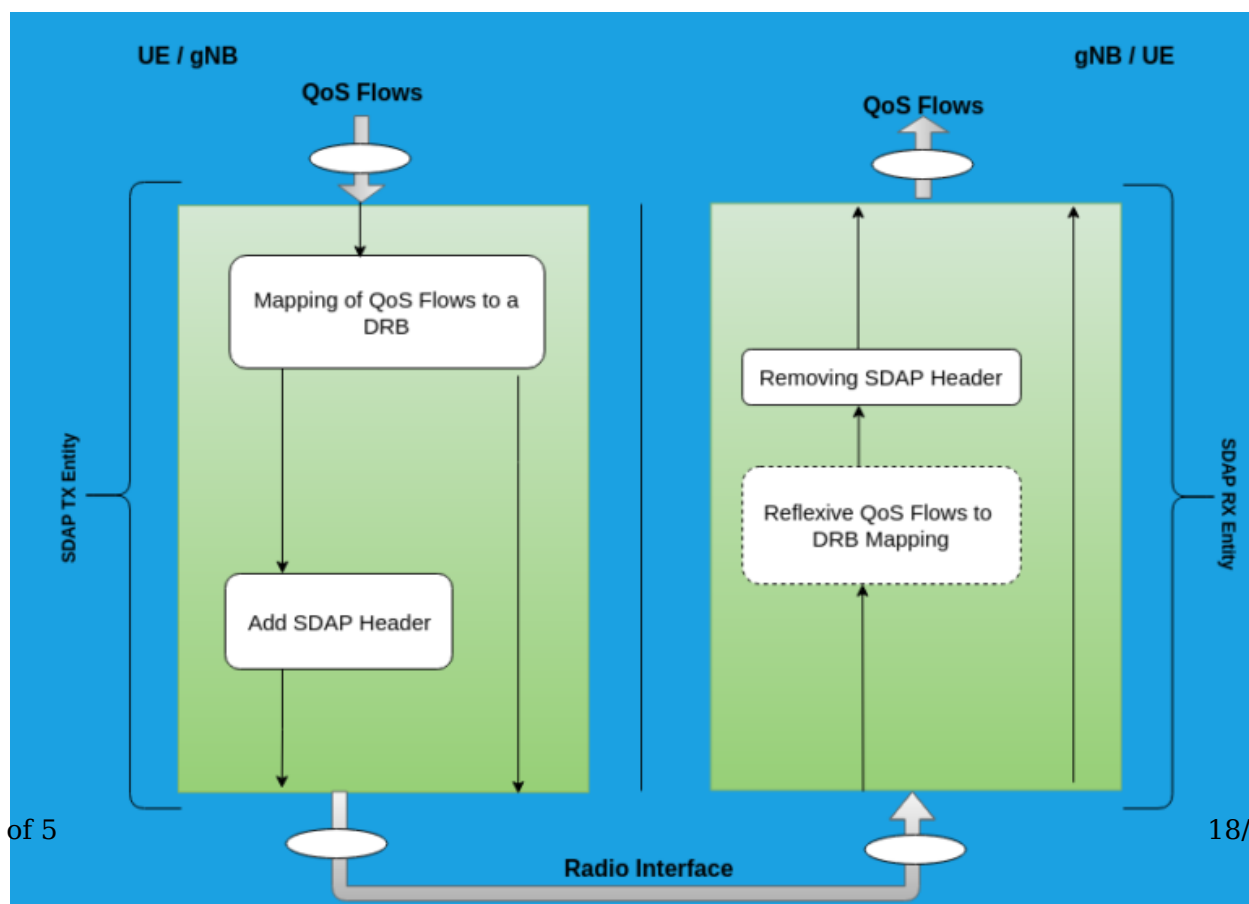
- Transfer of user plane data
- The mapping between a QoS flow and a data radio bearer for both DL and UL
- Marking QoS flow ID (QFI) in both DL and UL packets.
- A single protocol entity of SDAP is configured for each individual PDU session.

- Reflective QoS flow to DRB mapping for the UL SDAP data PDUs.

The structural view of the SDAP layer given in the below diagram, which will give a very high-level idea about SDAP layer.



The functional diagram for SDAP layer:



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**Reference :**

3GPP TS 37.324 Rel 15

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