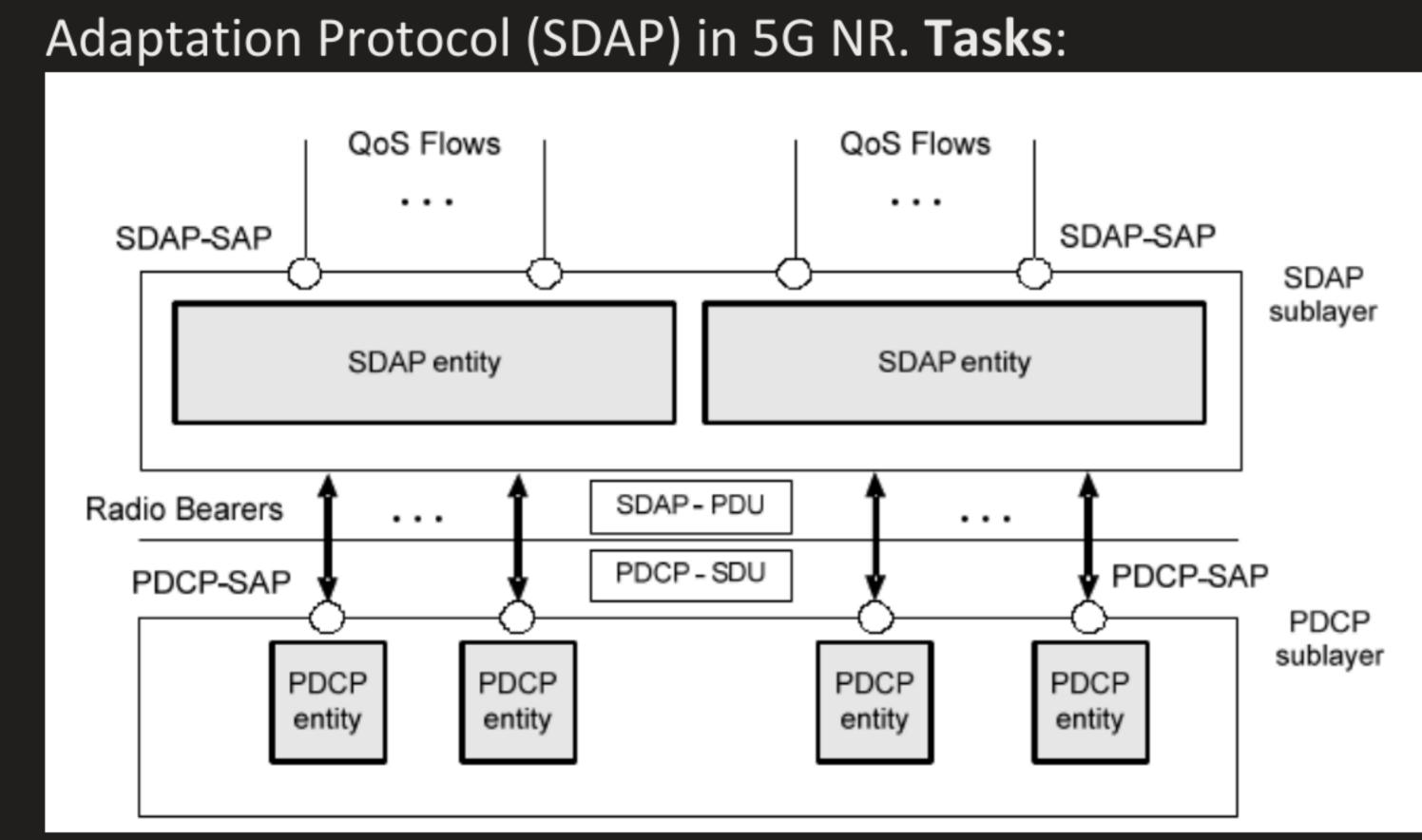
Assignment 1

31 July 2024 10:55

Assignment 1: Understanding SDAP

Architecture

Objective: Describe the architecture of the Service Data



Explain the overall structure of the SDAP layer.
 Ans:-SDAP stand for Service Data Adaption Protocol.
 The SDAP layer is a part of the 5G network architecture. This is also an upper layer. SDAP come

between the PDCP(Packet Data Convergence

Protocol) layer and the RLC(Radio Link Control) layer.

Purpose:-Purpose of SDAP is to ensure that different type of data flows get the best treatment as they passes through the network.

The primary task of the SDAP layer is to map each QoS Flow onto a specific Data Radio Bearer (DRB). The SDAP layer adds header information to the downlink data packets when reflective QoS is enabled at either the Access Stratum or Non-Access Stratum layers.

*Key Components:

- A. **Application**: Requests data or services from the network.
- B. SDAP Layer: Acts like an intermediary between the application and the network.
- C. **Network Functions:** Provide data and services to the SDAP layer.

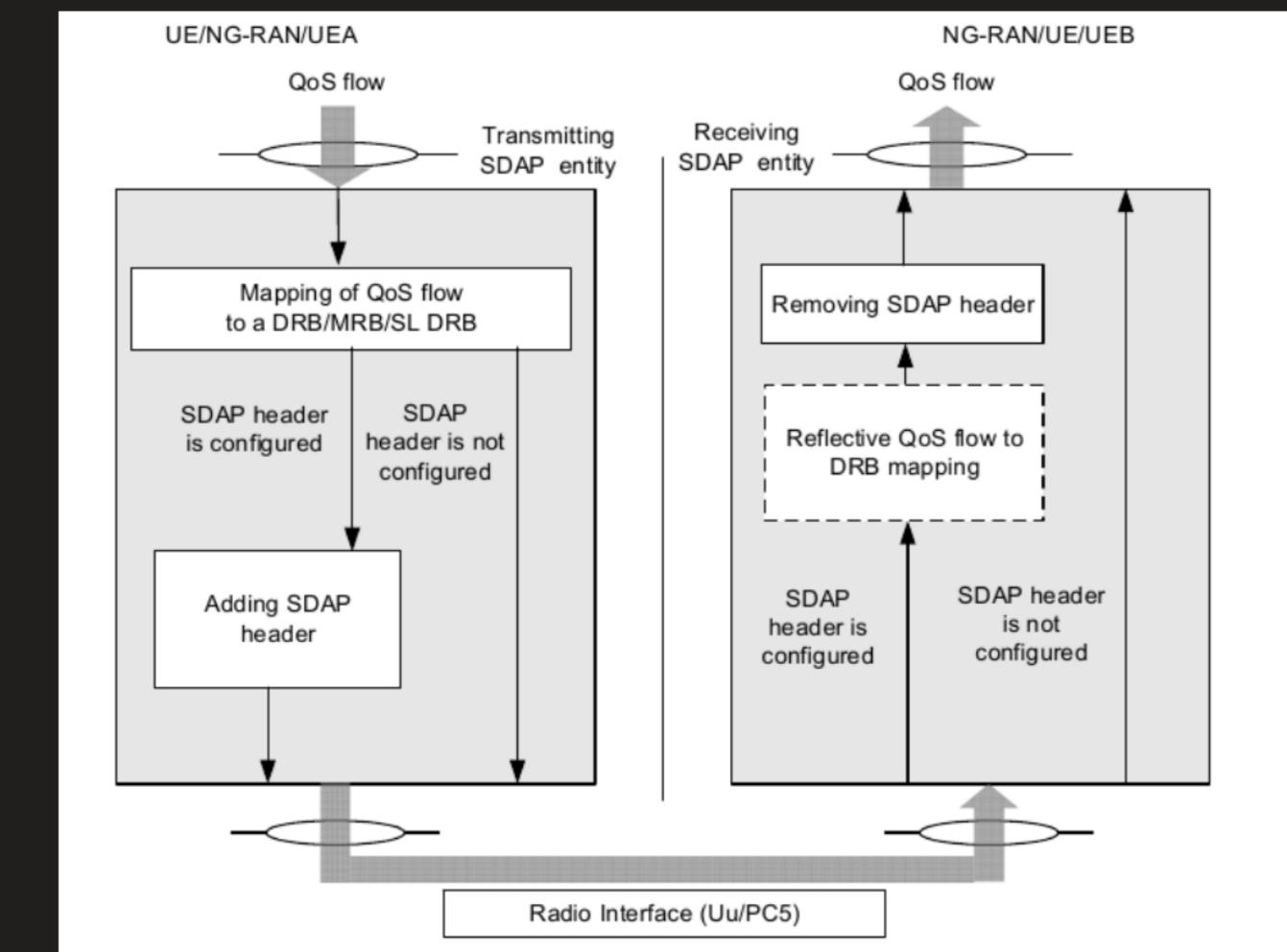
*Process:

- i. The application sends a request to the SDAP layer.
 ii. The SDAP layer receives the request and adapts it
- into a format suitable for the network. iii. The adapted request is sent to the relevant network
- functions (e.g., data storage, processing, etc.). iv. The network functions process the request and send
- the response back to the SDAP layer.

 v. The SDAP layer receives the response, adapts it into a format suitable for the application, and sends it back to the application.

In simple The SDAP layer behave as a "translator" between the application and the network, ensuring that data is exchanged proper and effectively.

2. Discuss the role of SDAP entities.



Ans. SDAP entities play a crucial role in 5G networks. SDAP entities are present in the SDAP sub layer. Role of SDAP entity to managing and optimizing data transmission.

*Roles:

SDAP entity receive/deliver SDAP SDUs from/to upper layer and submits/receives SDAP data PDUs to/ from its peer SDAP entity by lower layer.
->At the transmitting side, when an SDAP entity receives a SDAP SDU from Upper layer, it constructs the corresponding SDAP PDU and submits it to lower layers.