

# 5G Testbed L2 Protocol Stack

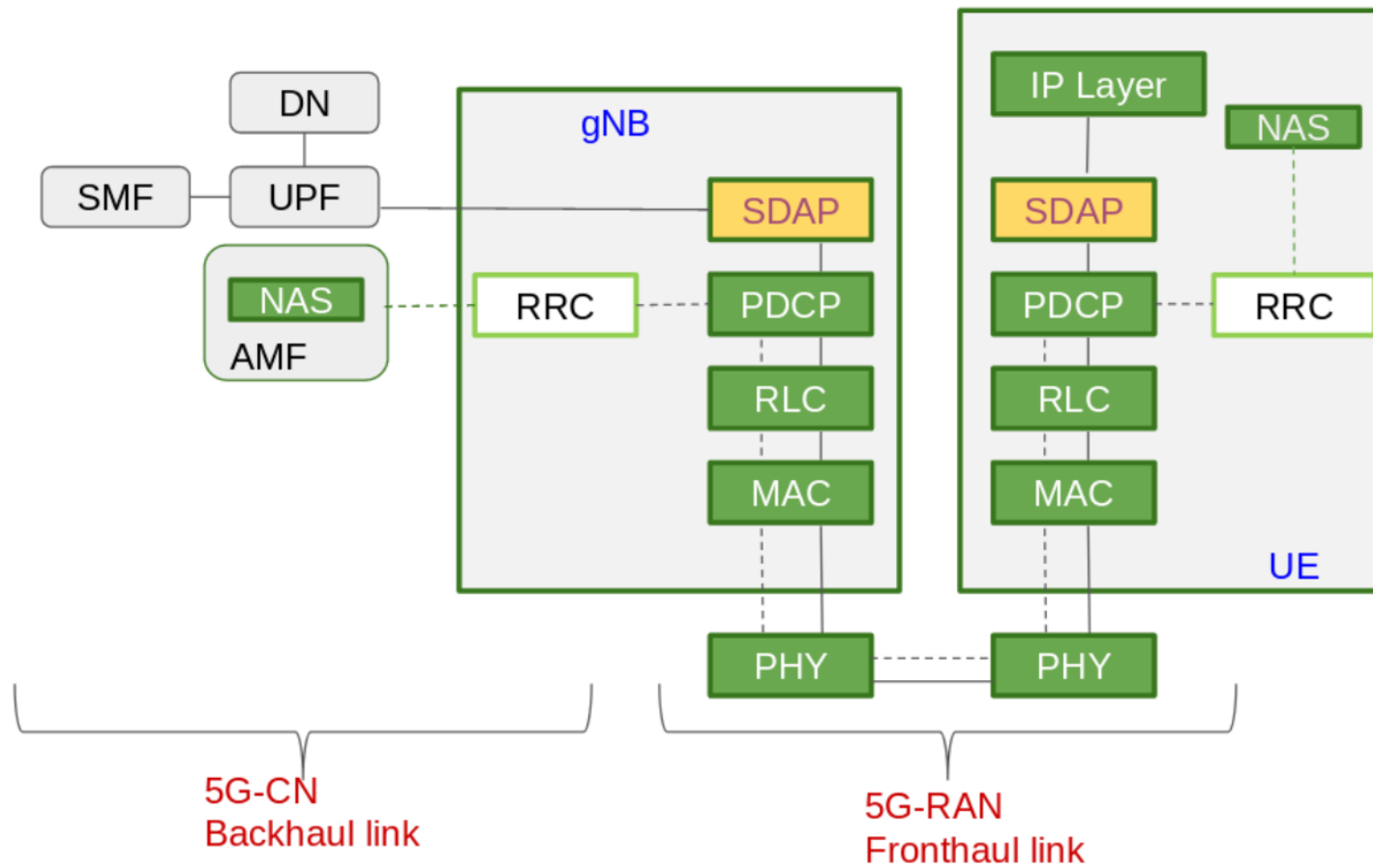
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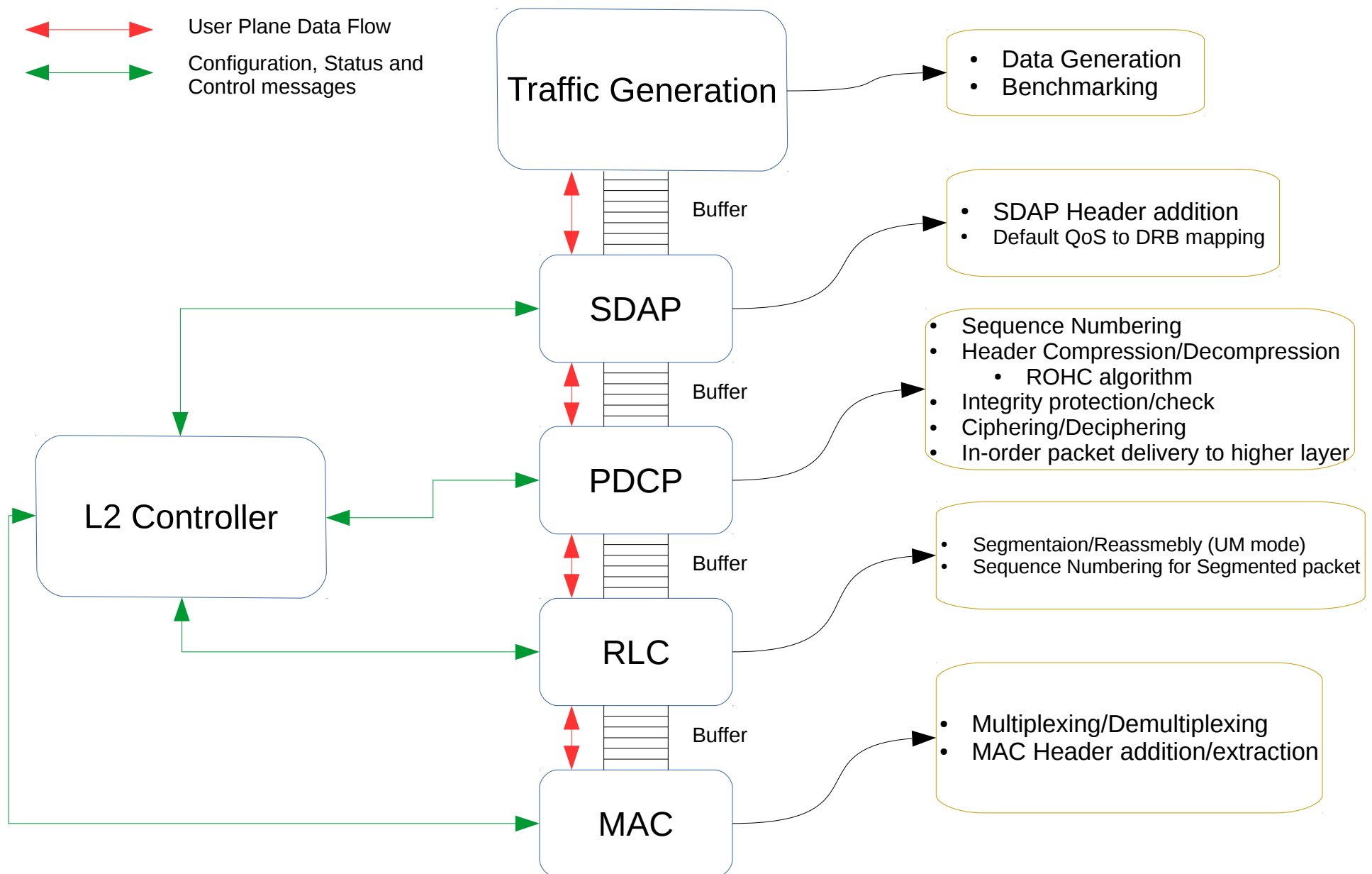
# Team

- Jitesh
- Monisha
- Shakti
- Tejaram
- Nitin
- New Interns
  - 2 - 4th Year Students (EE-2)
  - 3 - 3rd Year Students (EE-3)
  - 6 - 2nd Year Students (EE-3 CSE-3)
  - 5 - 1st Year Students (EE-3 CSE-2)

# Overview



# Present Status of L2 Stack



# Issues Being faced

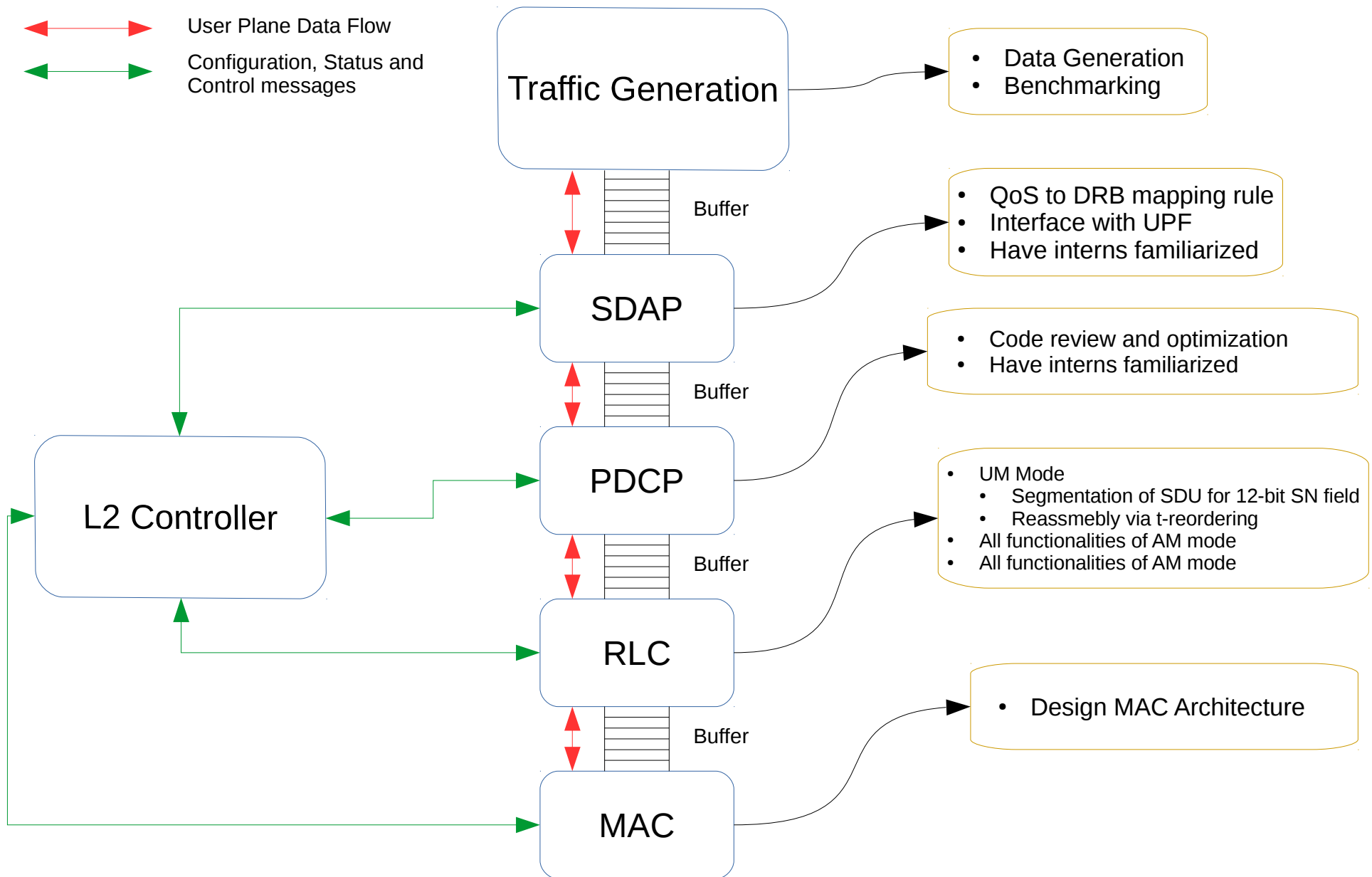
- Memory Leaks
- Malformed IP packet detection at PDCP layer
- An unknown issue present with all sublayers integrated when running for longer duration. (under Debugging mode)

# Shortcomings

- The sub layers implement the functionality as per the spec but as a whole integrated system the stack is just a pipe for transmission of data.
- Major Memory leaks



# Upcoming Work

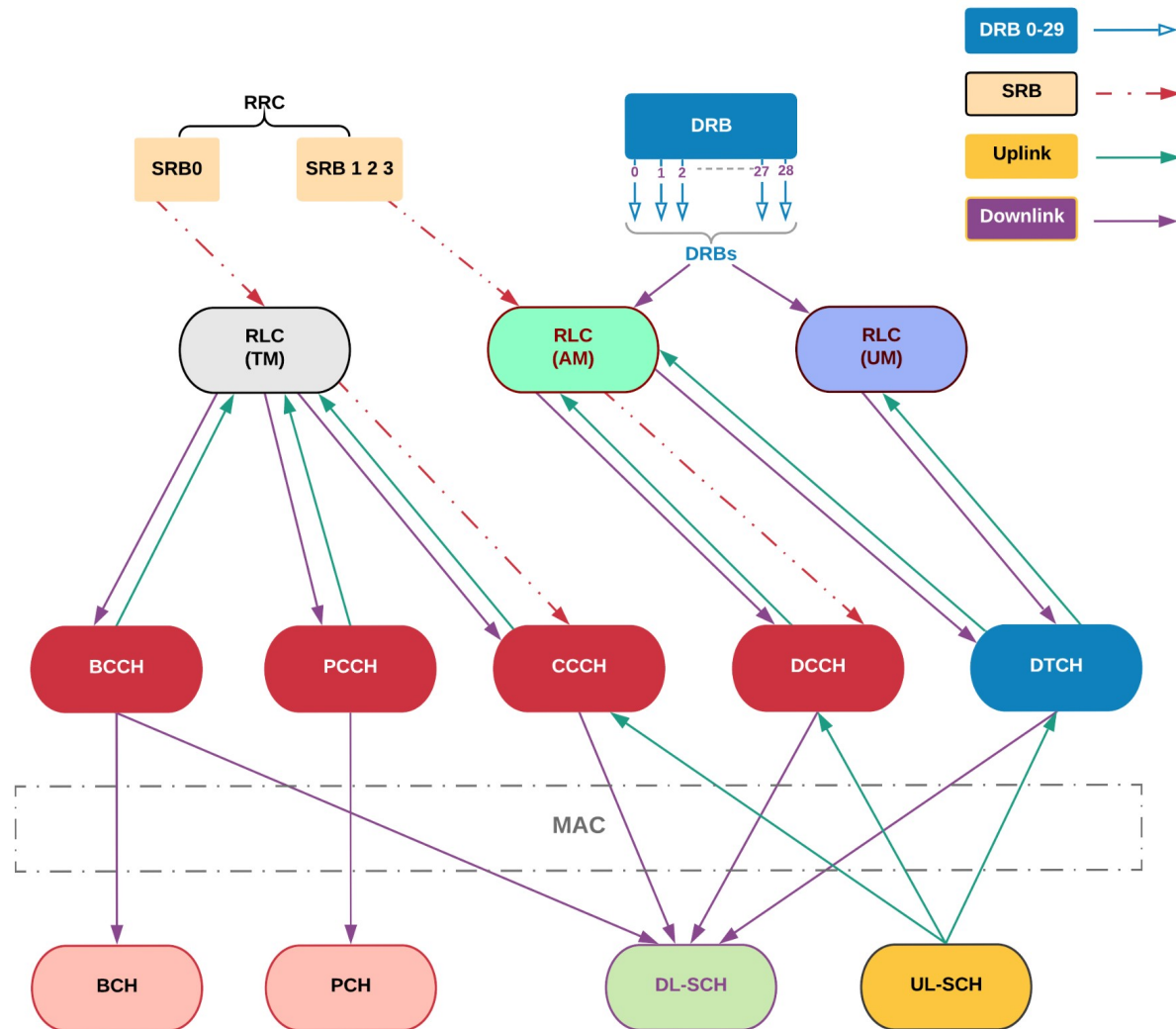


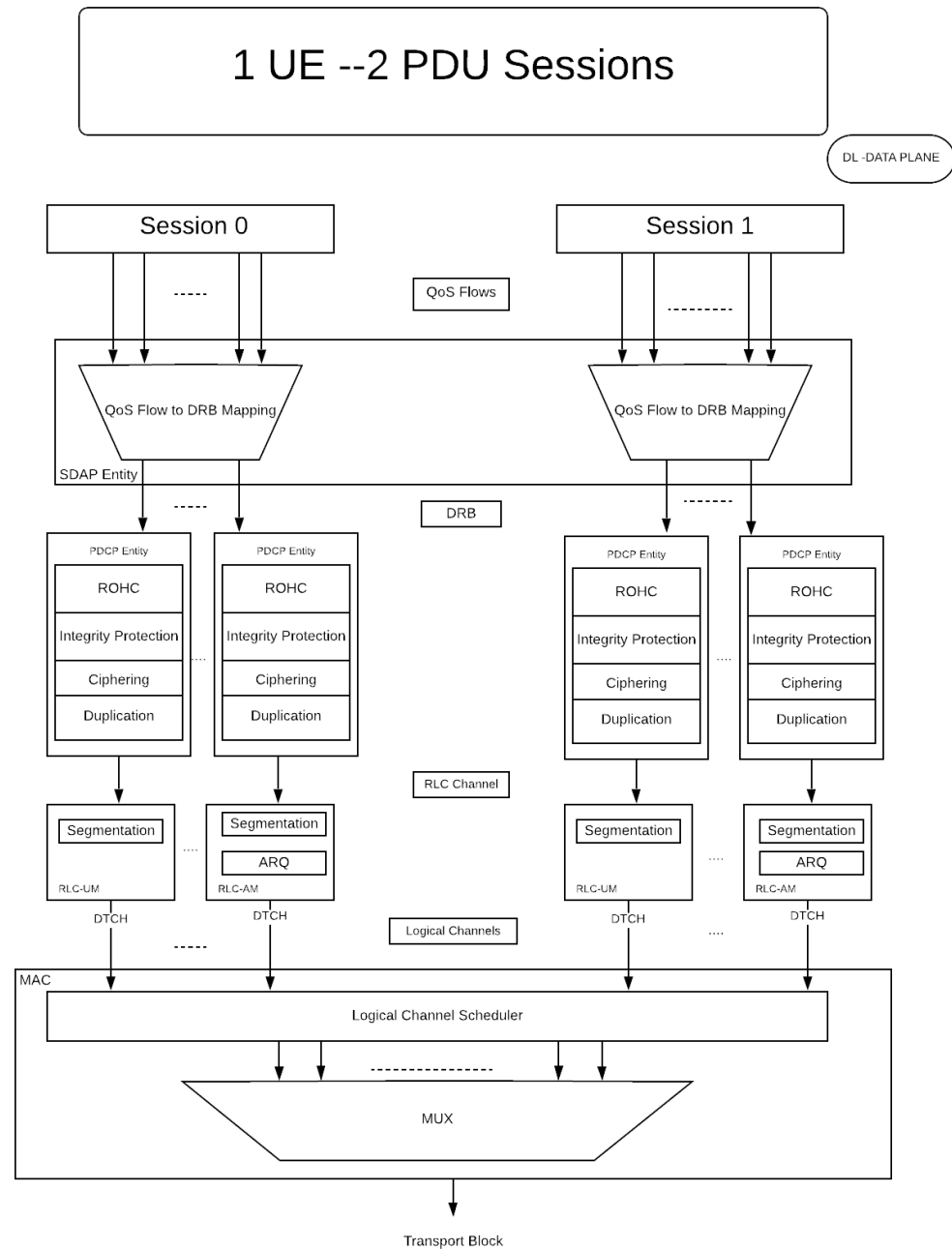
- Bring up of RRC module
- Bring up of L2/L3 interface with Corenetwork
- Makefiles
- Documentation
  - Code
  - Coding style
  - Sublayer functionalities

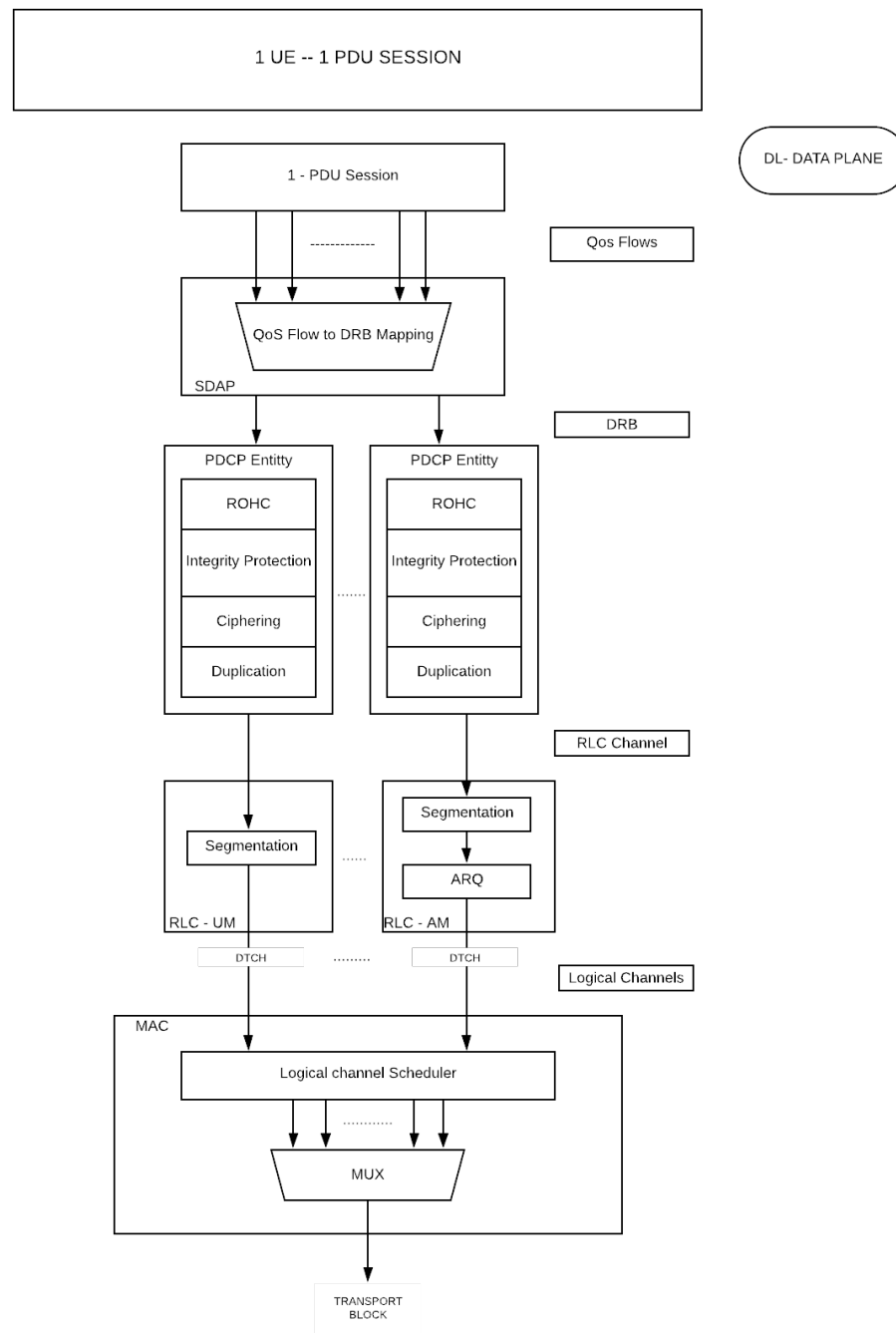
# Future Workflow

- Overall L2/L3 Architecture design document
- Implementation Architecture design of overall L2/L3 document
- Individual sublayer abstract architecture design
- Individual sublayer implementation architecture design
- Configuration messages flow for each sublayer
- Message passing flowcharts

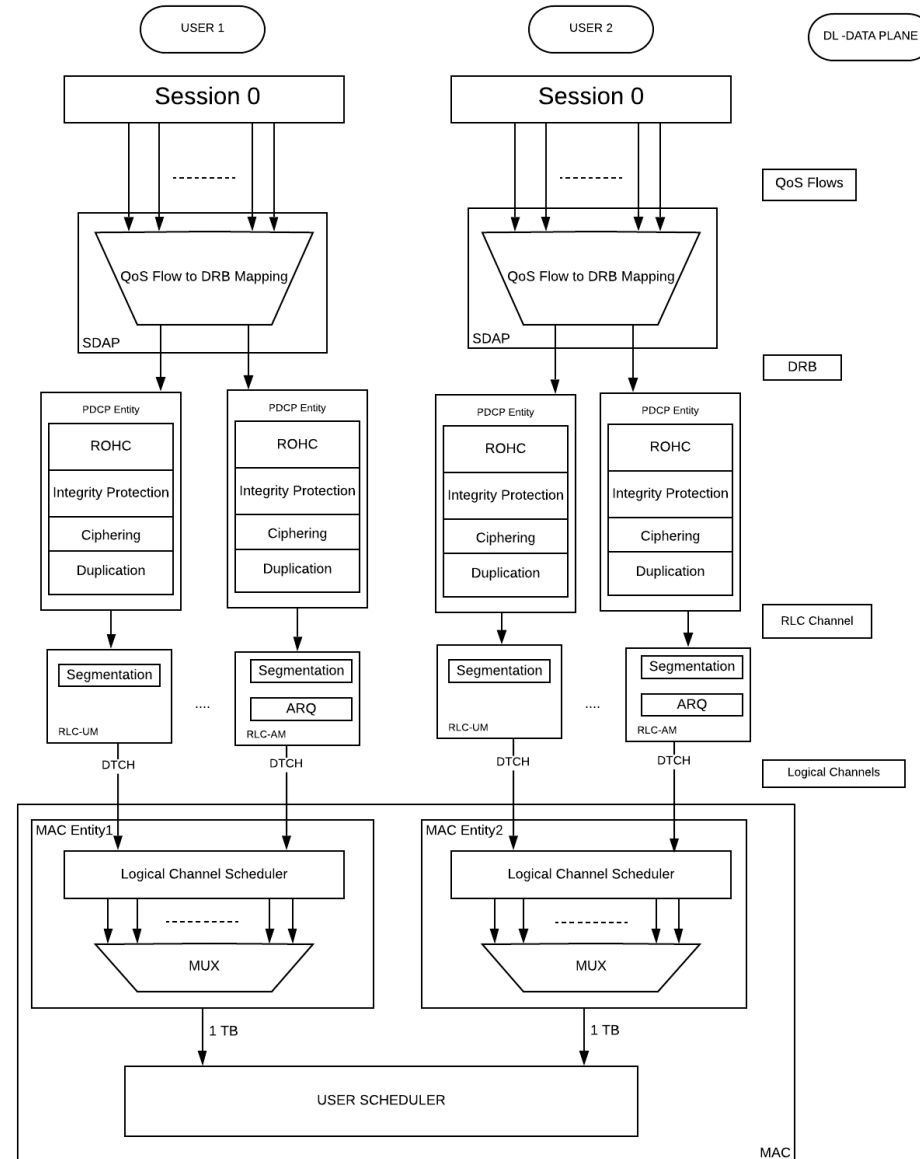
# Flow of Control and Data Info



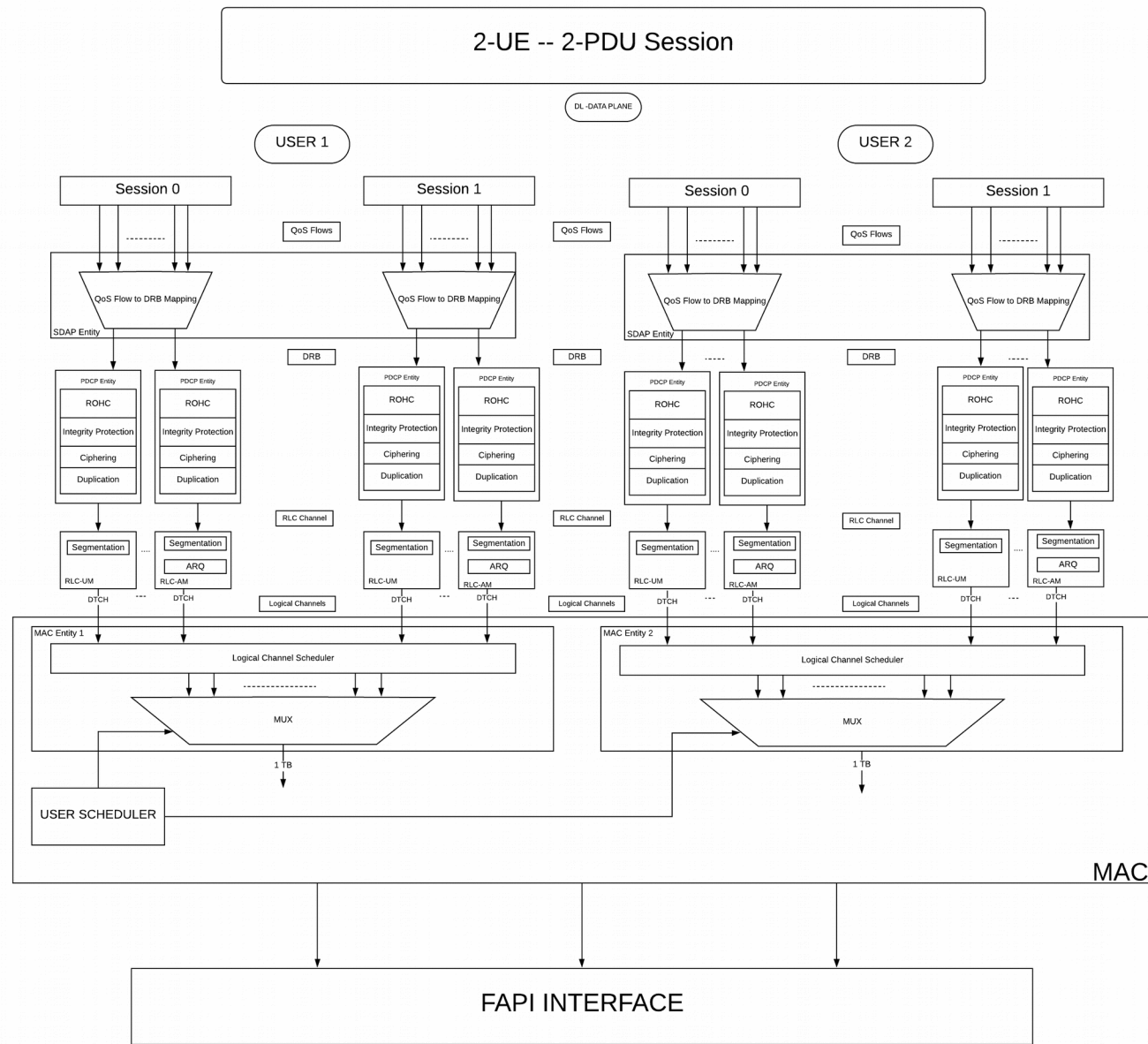




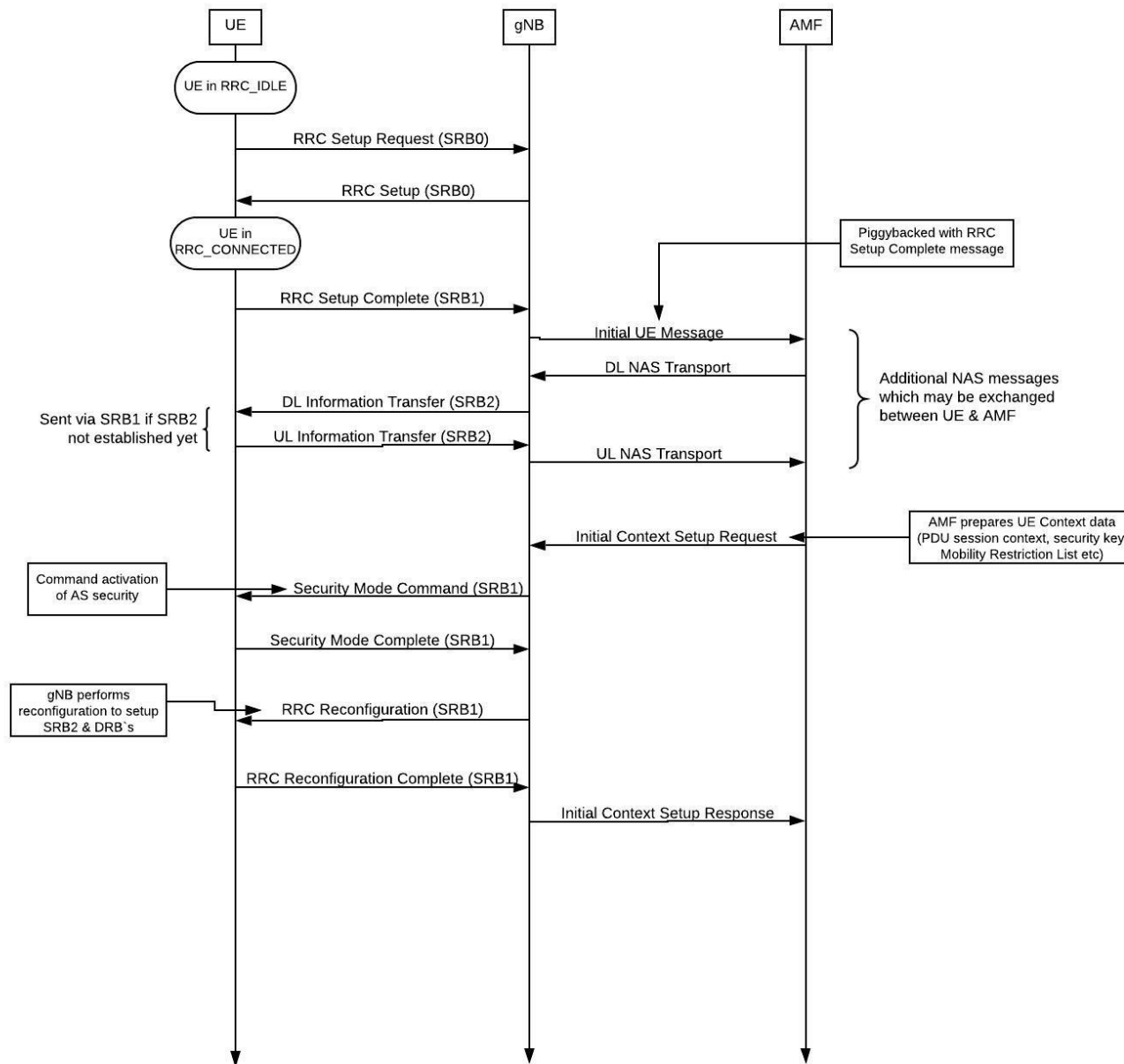
## 2 UE -- 1 PDU Session each



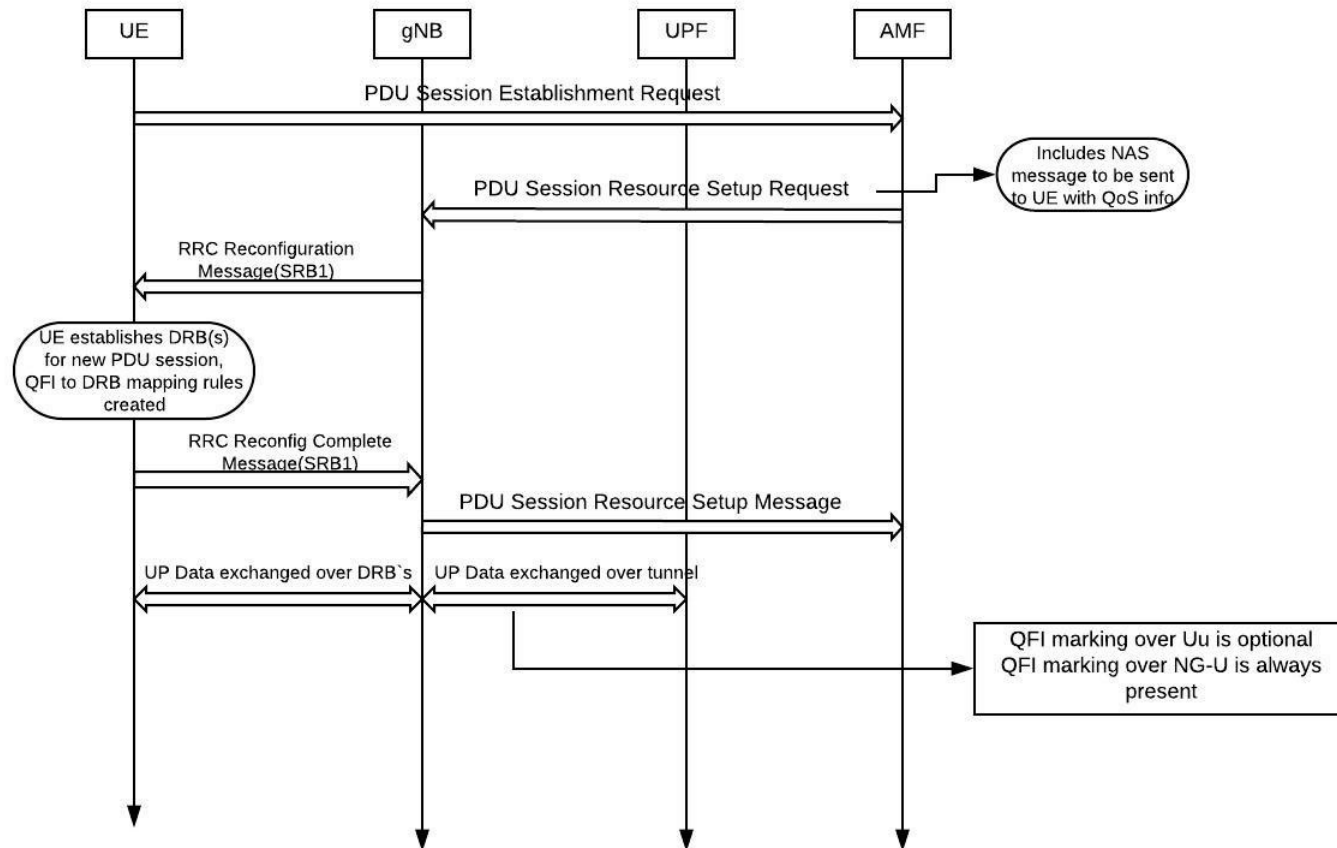




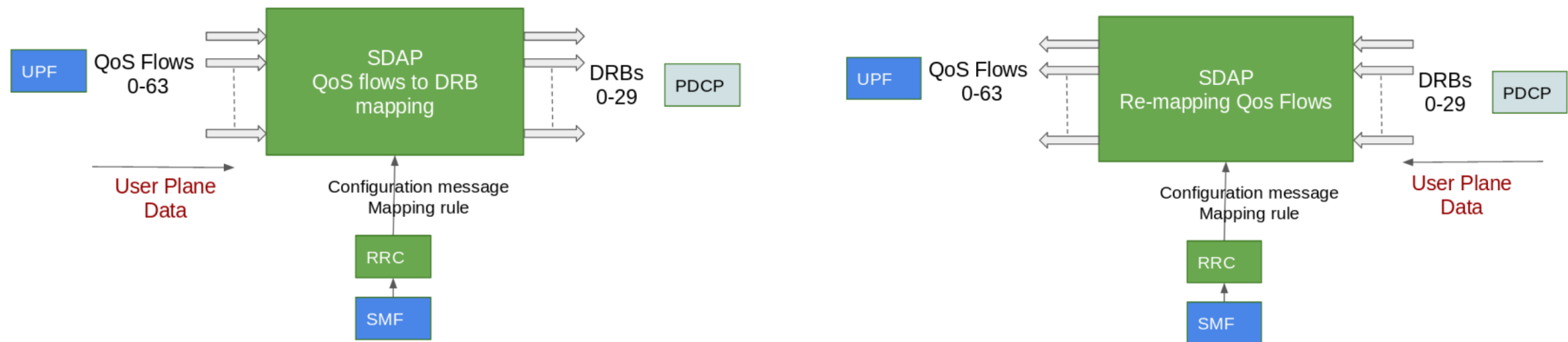
# RRC\_IDLE to INITIAL\_CONTEXT\_SETUP



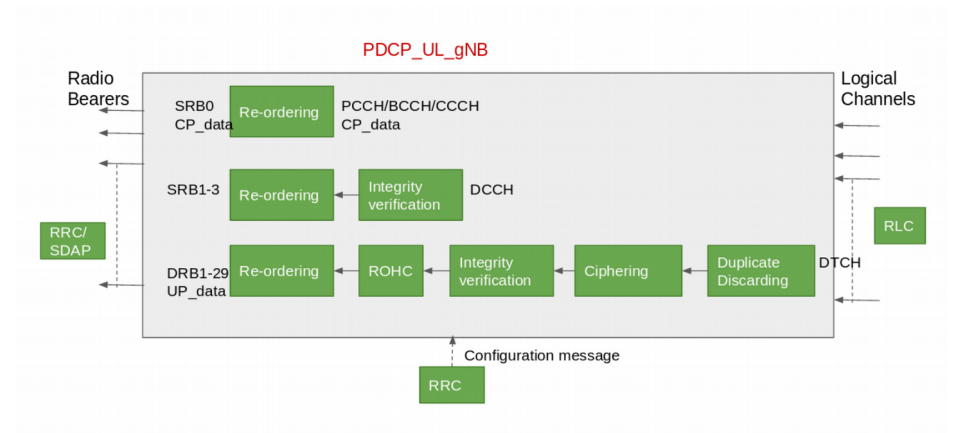
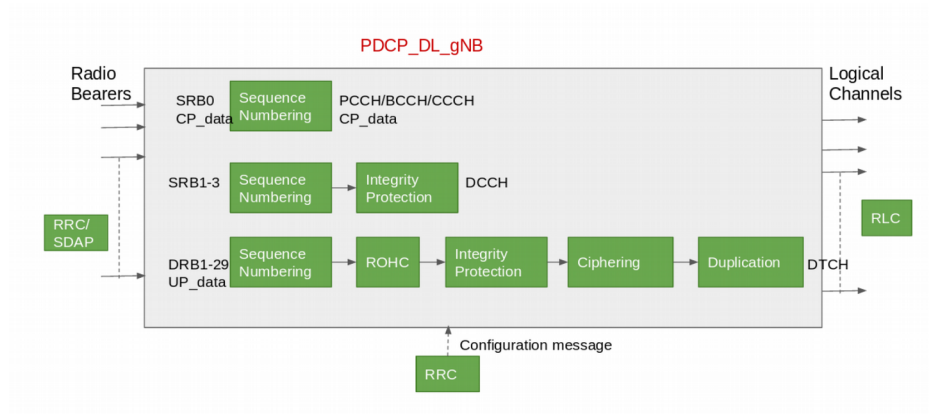
# PDU Session Establishment



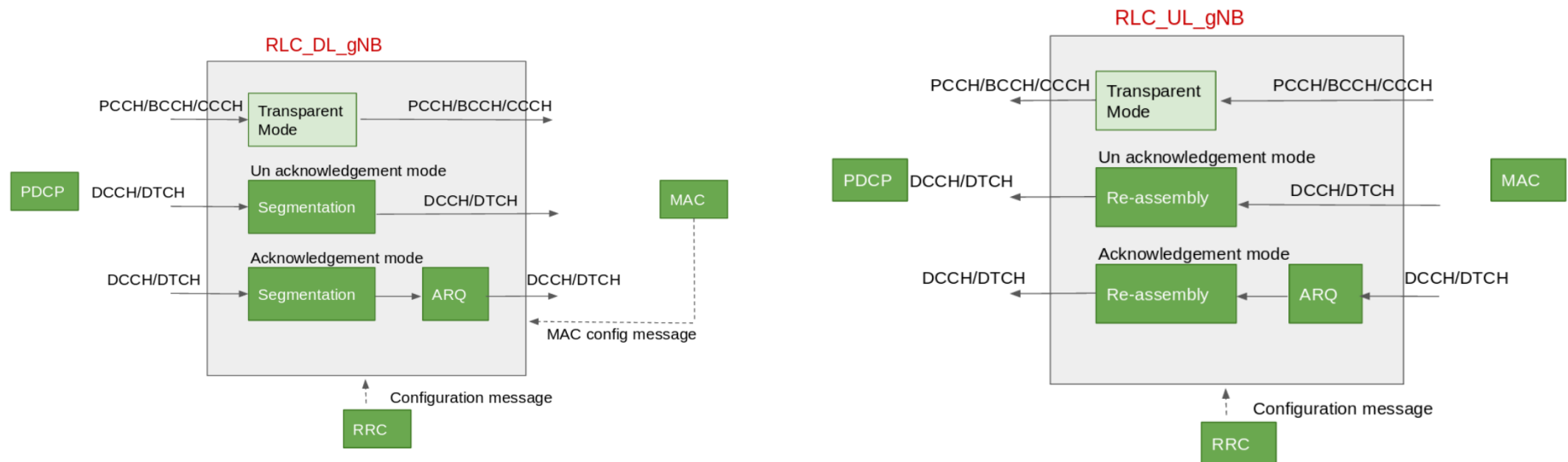
# SDAP



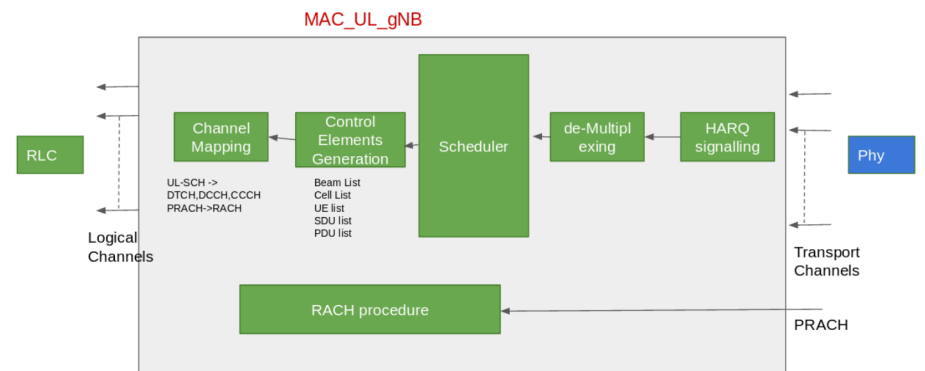
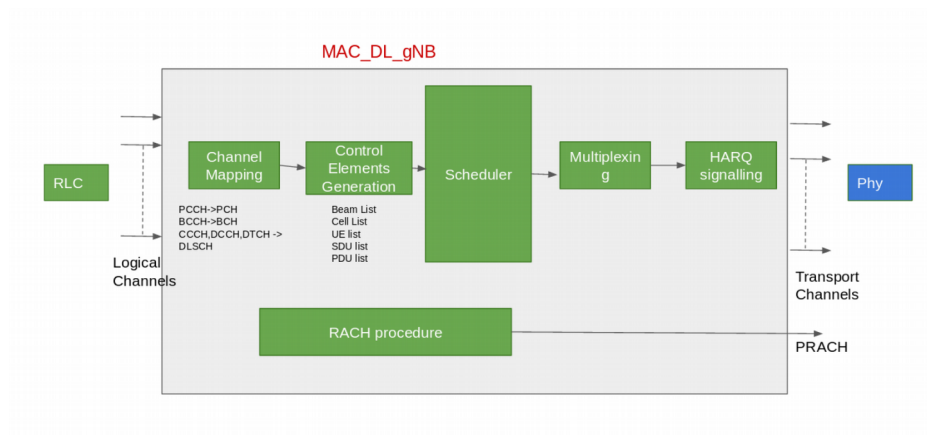
# PDCP



# RLC



# MAC



# Message calls Details



# Thank You