

20 апреля 2024

Протоколы и интерфейсы БС LTE. Лекция 2.

# Процедура attach в wireshark

ВЛАД РЫЖОВ

Fast Track в Телеком, 2024



# Что сегодня будет происходить? Адженда

Повторение  
теории  
процедуры  
attach

10 минут

Демонстрация  
примера

15 минут

**Повторение  
теории  
процедуры  
attach**

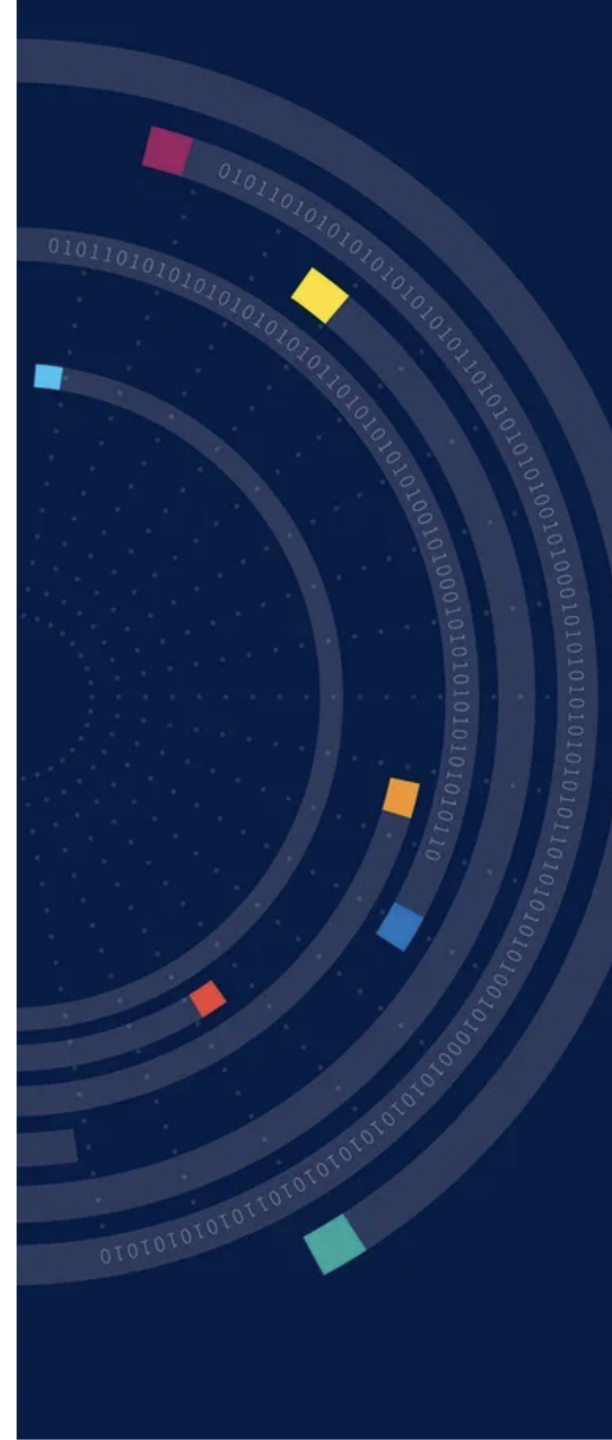
**10 минут**

**Демонстрация  
примера**

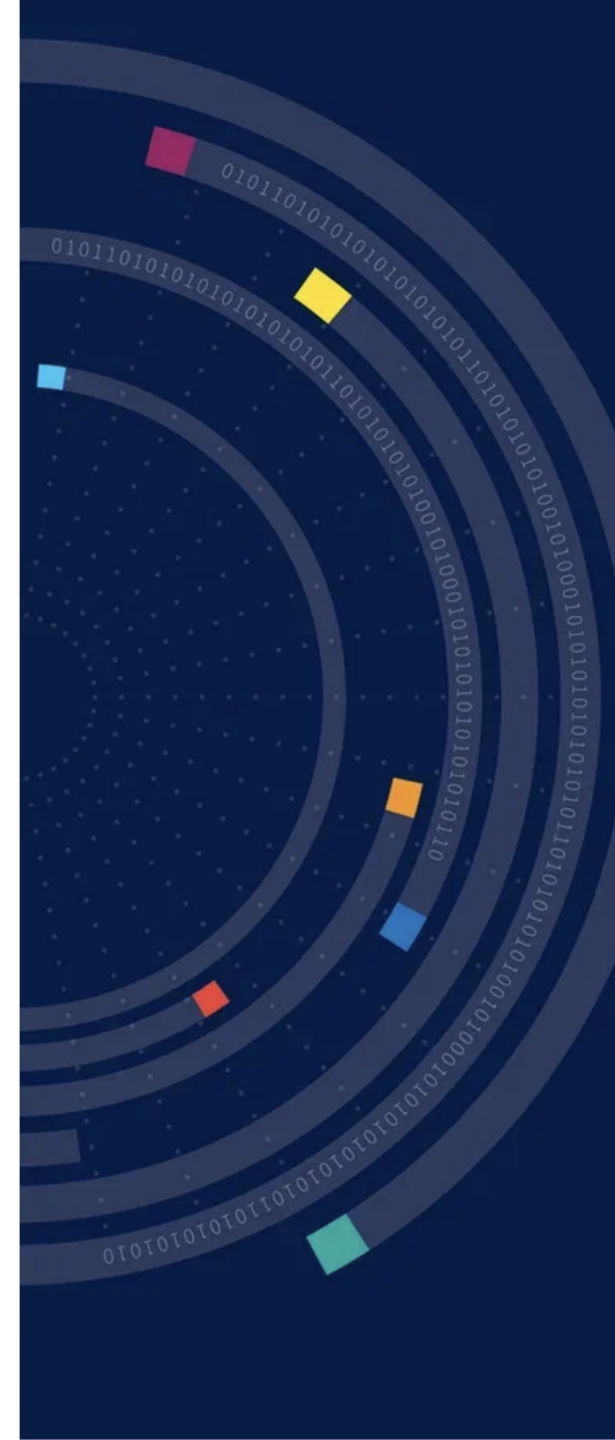
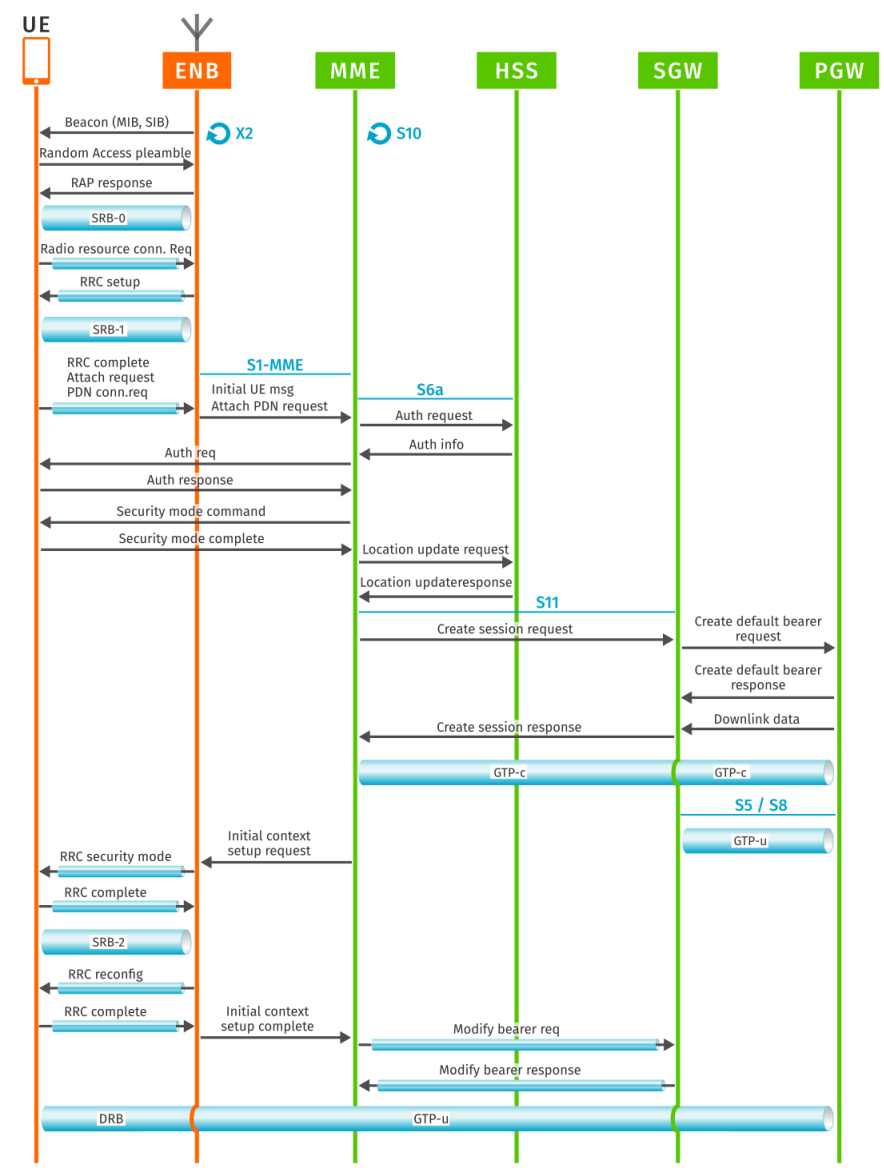
**15 минут**

# Повторение теории процедуры attach

Step	Direction	Channel	Message
1	UE <---- NW	BCCH -> BCH, No MAC Header, RLC TM, No PDCP	MIB
2	UE <---- NW	BCCH -> DL SCH, No MAC Header, RLC TM, No PDCP	SIBs
3	UE ----> NW	PRACH -> RACH, No MAC Header, No RLC, No PDCP	PRACH Preamble
4	UE <---- NW	RACH -> DL SCH, No MAC Header, No RLC, No PDCP	RACH Response
5	UE ----> NW	UL SCH -> UL CCCH MAC Header, No RLC, No PDCP	RRC Connection Request
6	UE <---- NW	DL CCCH -> DL SCH MAC Header, No RLC, No PDCP	RRC Connection Setup
7	UE ----> NW	UL SCH -> UL DCCH MAC Header, RLC AM, PDCP	RRC : RRC Connection Setup Complete + NAS : Attach Request (ESM:PDN Connectivity Request)
8	UE <---- NW	DL DCCH -> DL SCH MAC Header, RLC AM, PDCP	RRC : dlInformationTransfer EMM : Authentication Request
9	UE ----> NW	UL SCH -> UL DCCH MAC Header, RLC AM, PDCP	RRC : ulInformationTransfer EMM : Authentication Response
10	UE <---- NW	DL DCCH -> DL SCH MAC Header, RLC AM, PDCP	RRC : dlInformationTransfer EMM : Security Mode Command
11	UE ----> NW	UL SCH -> UL DCCH MAC Header, RLC AM, PDCP	RRC : ulInformationTransfer EMM : Security Mode Complete
12	UE <---- NW	DL DCCH -> DL SCH MAC Header, RLC AM, PDCP	RRC : Security Mode Command
13	UE ----> NW	UL SCH -> UL DCCH MAC Header, RLC AM, PDCP	RRC : Security Mode Complete
14	UE <---- NW	DL DCCH -> DL SCH MAC Header, RLC AM, PDCP	RRC : RRC Connection Reconfiguration EMM : Attach Accept ESM : Activate Default EPS Bearer Context Request
15	UE ----> NW	UL SCH -> UL DCCH MAC Header, RLC AM, PDCP	RRC : RRC Connection Reconfiguration Complete
16	UE ----> NW	UL SCH -> UL DCCH MAC Header, RLC AM, PDCP	RRC : ulDirectTransfer EMM : Attach Complete ESM : Activate Default EPS Bearer Context Accept
17	UE <---- NW	DL DCCH -> DL SCH MAC Header, RLC AM, PDCP	RRC : RRC Connection Release



# Повторение теории процедуры attach



**Повторение  
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**10 минут**

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attach\_2ue.pcapng

# Разбор примера



**СПАСИБО**