

SCHC Entities for NB-IoT

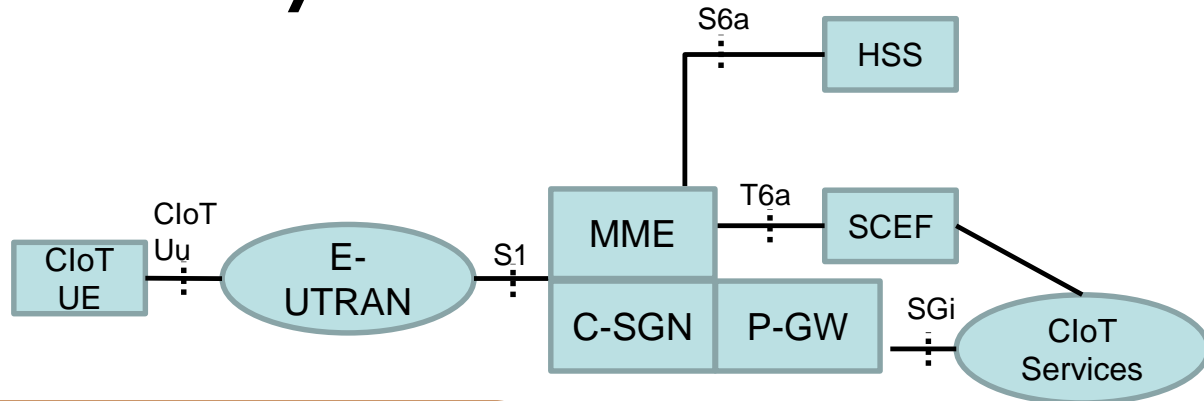
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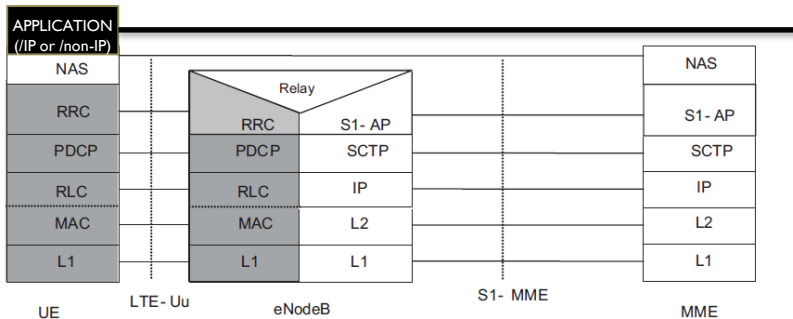
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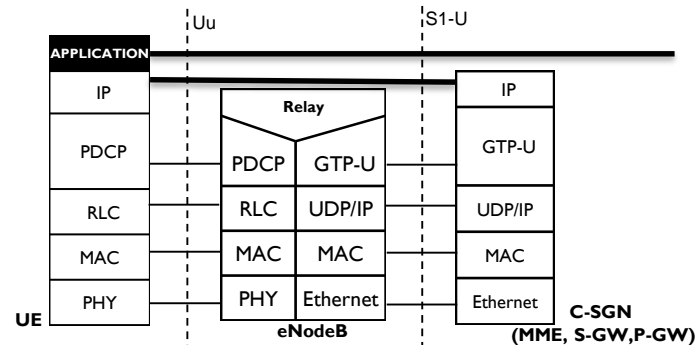
NB-IoT System Architecture



User Plane Stack for DoNAS



User Plane Stack for Connected mode



SCHC Entities

- 3GPP standardized interfaces
- As application layer packets (Non-IP traffic)

SCHC on 3GPP standardized interfaces

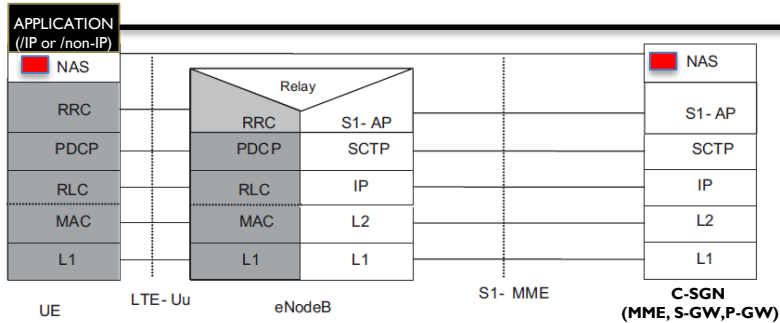
- Requires to be introduced in the 3GPP standards
- Basically an additional alternative to current RoHC
 - Same placement as the RoHC entities
 - Similar setup and operation

SCHC on 3GPP standardized interfaces

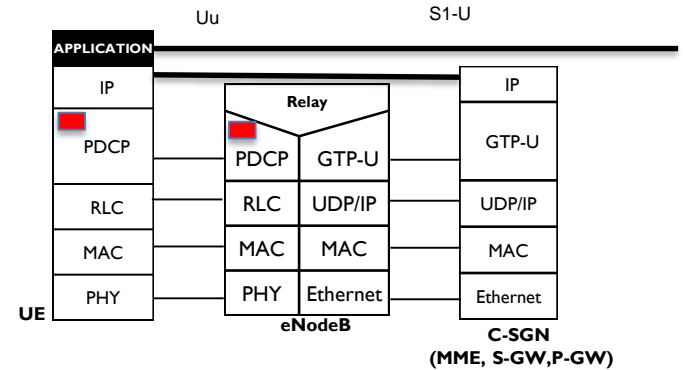
- Data transmission over NAS without Access Stratum (AS) security established

- Data transmission over User Plane Access Stratum (AS) with security established

User Plane Stack for DoNAS



User Plane Stack for Connected mode

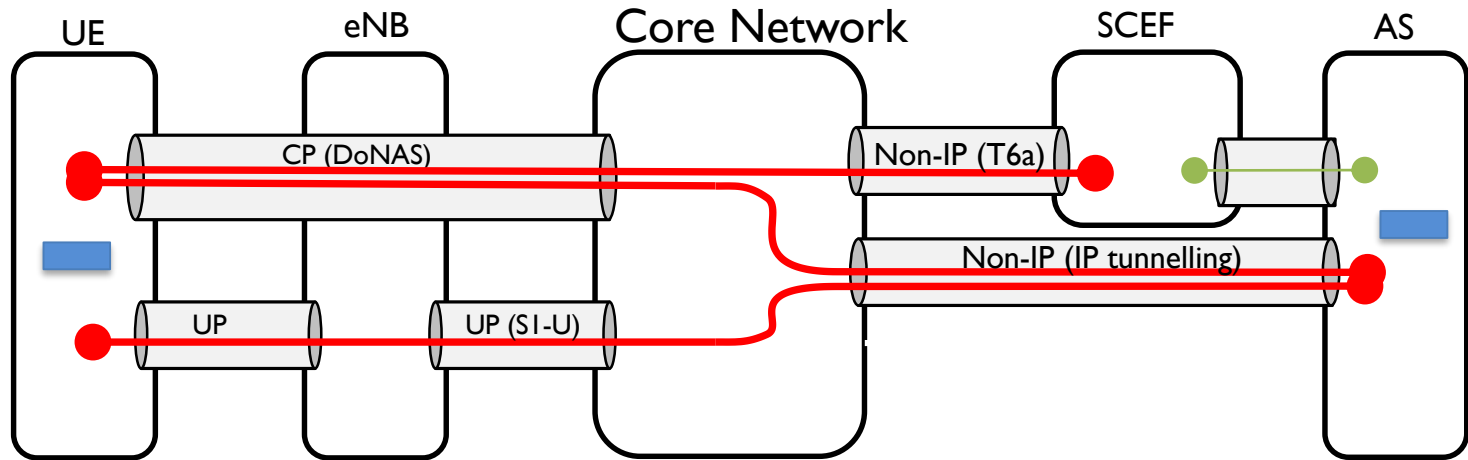


 SCHC compressor /decompressor

SHCH as application layer packets

- Does not require 3GPP standardization
 - But requires operator support
- The traffic is seen as Non-IP traffic by the Network
 - Uses 3GPP Non-IP transport APIs options over the core network
 - IP Tunneling & SCEF based delivery
 - **Intermediate hops cannot directly understand compressed IP headers**

SHCH as application layer packets



■ SCHC compressor /decompressor
(Application Layer)

● Non-IP
● SCEF services