SCHC Entities for NB-IoT

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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 stablished

User Plane Stack for DoNAS

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

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

- UE
- eNB
- Core Network
- SCEF
- AS

- CP (DoNAS)
- UP
- UP (S1-U)
- Non-IP (T6a)
- Non-IP (IP tunnelling)

SCHC compressor /decompressor (Application Layer)

- Non-IP
- SCEF services