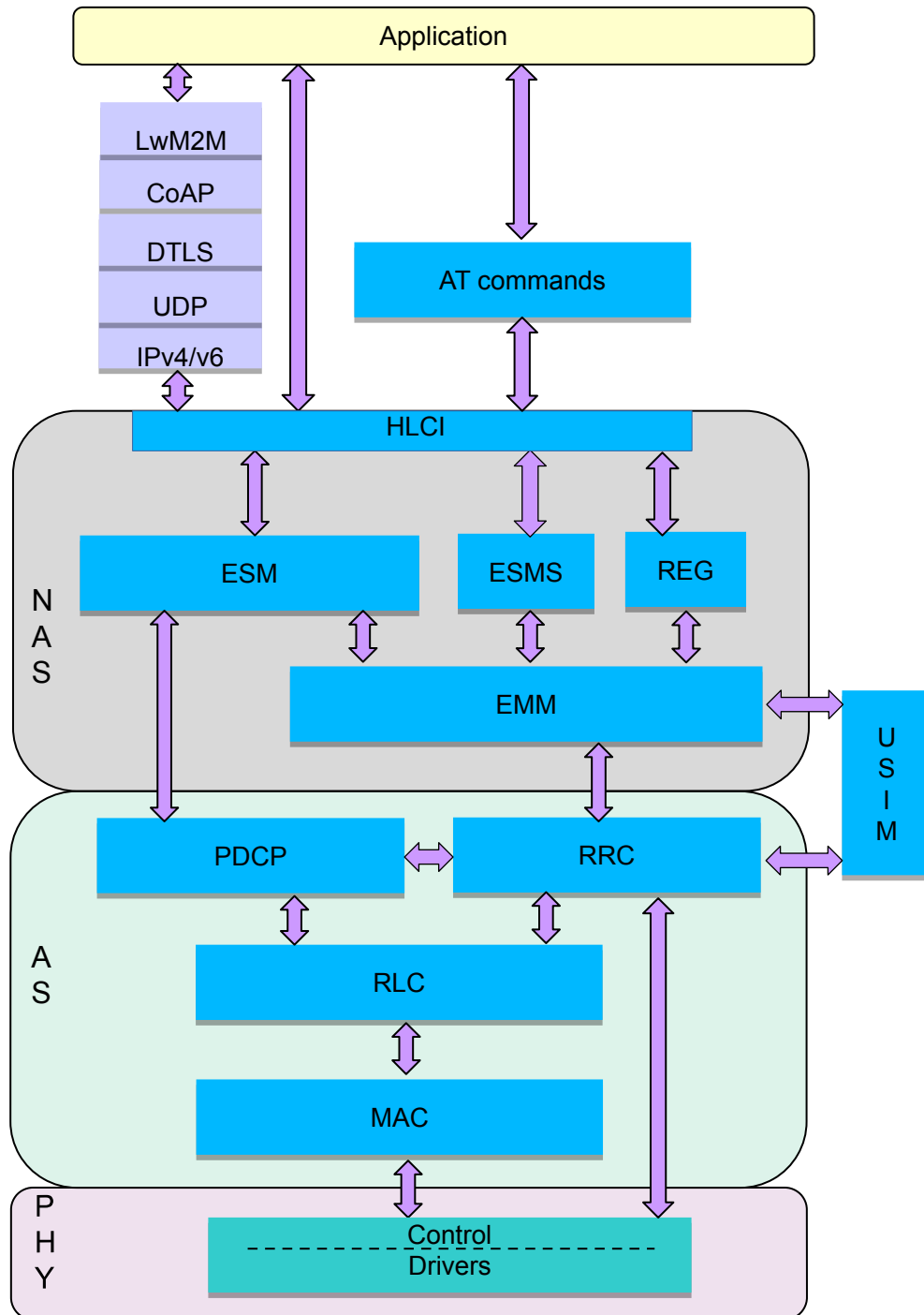


3GPP® NB-IoT NTN UE Protocol Stack



Features:

- 3GPP® Release 17/18 compliant
- Multiple satellite orbits; GEO, NGSO (LEO, MEO) supported
- Differential Koffset supported
- quasi-earth-fixed and earth-moving beams supported
- transparent or regenerative mode supported
- Cat NB1, NB2 supported
- hand-coded in ANSI C
- runs on embedded RTOS (FreeRTOS, embedded Linux, or other)
- system testing using CCww's NB-IoT NTN test bench
- maximised battery life: PSM (Power Saving Mode), extended DRx
- SMS, IP and non-IP-data
- optimised ASN.1
- SIB31, SIB32 supported
- Control-Plane CIoT EPS optimisation
- User-Plane CIoT EPS optimisation (RRC suspend/resume)
- RRC Connection Re-establishment for CP EPS optimisation
- EPS AS and UP encryption algorithms ZUC, SNOW3G, AES supported
- 2 DRBs supported
- RF bands 255, 256 supported

Deliverables:

- PHY (from Lekha Wireless)
- AS: MAC, RLC, PDCP & RRC
- NAS: EMM, ESM, ESMS, REG
- USIM interface control, AT commands, HLCI (API to app-layer)
- RoHC header compression (3rd party licence)
- optional 3rd party: IPv4, IPv6, IoT service-layer (LwM2M, CoAP)
- jHAT graphical debug/test application
- build scripts
- full documentation
- graphical debug/regression-test application with log save & replay