5G PHY API and Networked PHY API

5G FAPI is an initiative within the small cell industry to encourage competition and innovation among suppliers of platform hardware, platform software and application software by providing a common API around which suppliers of each component can compete. In doing this, we imitate a long and distinguished engineering tradition of providing an 'interchangeability of parts' to ensure that the systems vendors can take advantage of the latest innovations in silicon and software with minimum barriers to entry, and the least amount of custom re-engineering.

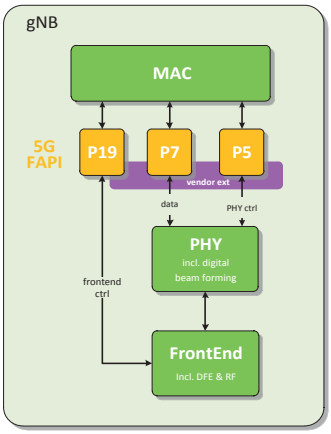
5G FAPI has been developed through a successful collaboration of companies from across the small cell eco-system, and defines three logical interfaces between the MAC and the PHY.

- P5 - the PHY mode control interface
- P7 - the main data path interface
- P19 - the RF control interface

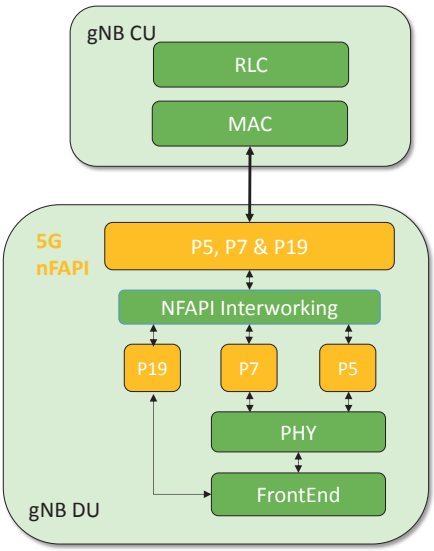
The initial, and widely supported, FAPI was defined for LTE, and an initiative following the LTE virtualization study undertaken by the Small Cell Forum resulted in network FAPI (nFAPI). This virtualization study examined different functional splits and identified the MAC-PHY interface, defined in FAPI, as a suitable split point. In 5G this split point was also identified by 3GPP and called split 6.

The Forum's motivation for defining nFAPI in LTE was to establish a scalable ecosystem with a converged approach to virtualization across multiple suppliers, and the continued adoption of NFV/SDN make this is even more crucial for 5G. As such, the Forum plan to expand 5G FAPI to operate across split 6 as 5G nFAPI.

FAPI



nFAPI



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