Parallel Wireless

WHITE PAPER

parallelwireless

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backhaul fiber, reducing the cost of deploying micro-cells.

The industry is coming to a consensus that the lower level interface that connects RU

deployment footprint, fiber and availability of required front hauls can be challenging. By distributing protocol stacks between different components (different splits), network engineers and providers can focus on addressing the tight requirements for a near-perfect FH between RU, DU and CU.

WHICH SPLIT?

The choice of how to split NR functions in the architecture depends on some factors related to radio network deployment scenarios, constraints and intended supported use cases. Three key ones are:

- A need to support specific QoS per offered services (e.g. low latency, high throughput for urban areas) and real/non-real time applications.
- Support of specific user density and load demand per given geographical area.
- Available transport networks with different performance levels, from ideal to non-ideal.

either centrally or at the edge close to the RU depending on latency and backhaul bandwidth requirements. Thus, it provides 4(d0.235 0.22 0.20429d0.235 06671.7 Tm0.235 0.22 0.204 rg0.235 0.22 0.204 RG30.235 0.222 nB-1 0823538

RAN FUNCTIONAL SPLIT 7: DENSE AND URBAN AREAS

In case of requirements for more delay-sensitive service, based on appropriate fronthaul availability, the MAC-PHY split will be the preferred solution. Option 7 Split architecture is where the DU handles the RRC/PDCP/RLC/MAC and higher PHY functions, whereas the RU handles the lower PHY and RF functions. CU functionality may be embedded with the DU on the same server, or it can be pushed up the network as a virtualized aggregation entity, along with an OpenRAN Controller or aggregator. Option 7 (Figure 7) lets operators share or pool gainn entity, along w

effective option with a low entity, along 520.2

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Split 8 is based on the industry standard CPRI interface and has been around for a while. With traffic split 8, all functions (from PHY to RRC layers) except for RF are handled by the DU, while the RF layer reside in the radio (Figure 9).