

Notes on the Open RAN Technical Priorities (Release 2)

UNDER THE OPEN RAN MOU

by Deutsche Telekom, Orange, Telefónica, TIM and Vodafone

This document has been released together with the second release of technical priorities by the signatories of the Open RAN MoU. Its purpose is to summarize supplementary notes on the priorities and the content of the technical priority updates for the reader’s better understanding.

1. Treatment of MoU technical releases

The three technical releases that have been defined in the Open RAN MoU are slightly updated below to precisely capture the different domains considered in the definition of the technical priorities. They should not be confused with the releases of the technical priorities.

	Release	Major Characteristics
R1	First Release – initial interoperability	1 st level disaggregation approach: <ul style="list-style-type: none"> - Adoption of Open FH interface defined by O-RAN Alliance with full interoperability between O-RU and O-DU/O-CU - Single vendor O-CU/O-DU - Proprietary cloud (no compliance with O-Cloud specs)
R2	Second Release – interoperability with open FH interface & HW/SW separation	Open FH interface as defined in O-RAN Alliance (multi-vendor, full interoperability) & O-CU/O-DU SW & HW, and O-Cloud SW platform
R3	Third Release – full intelligence and automation	SMO and RIC based operation (both non and near real-time) as defined in O-RAN Alliance, more open interfaces, open APIs

While the three releases depict an expected stepwise maturation of the Open RAN solutions (first open fronthaul, then HW/SW separation, then SMO and RIC), the MoU requirements have been structured to cover all releases of the MoU defined in the above table with focus on the Releases R2 and R3. In other words, MoU signatories encourage product manufacturers to consider all releases right from the beginning and prioritize their requirements accordingly.

2. Perception of technical priorities

Technical priorities published by the MoU signatories are those that the signatories consider priorities for Open RAN solutions. They serve as guidance to the RAN supplier industry on where to focus to accelerate market deployments in Europe, focusing on commercial product availability in the short term, and solution development in the medium term.

Nevertheless, the signatories welcome and expect competition between suppliers to drive innovation and the development of solutions with greater performance than those described in

the technical priorities. Individual signatories may well demand more stringent requirements in their own product selection processes than those set out in the requirements.

3. Release notes

The second release of the technical priorities is primarily focused on developing further requirements on RIC and SMO. In addition, other areas have been significantly enhanced such as Cloud Infrastructure and Transport, with Energy Efficiency treated as a transverse topic across all streams.

This second release embraces 3 documents:

- The present “umbrella” document, describing the mapping of the technical requirements to the 3 MoU releases and giving a brief summary of the content
- The Energy Efficiency summary
- The full Technical Priority Document in Excel format

The Energy Efficiency (EE) summary provides a global overview of the corresponding requirements across all network components. This document addresses the following topics:

- The choice of power efficient hardware
- The KPIs at different Hardware and Software levels to report EE
- The RAN features to improve EE
- The intelligence and orchestration to automate EE features
- The EE targets for each of the network components

The full Technical Priority Document provides an update of the first release document (released in June 2021), covering both updated and additional requirements.

While all areas have been revisited, in particular with the addition of Energy Efficiency requirements and recent evolution and decisions in the O-RAN Alliance, the most significant updates have been performed in the following areas:

- SMO, with further details on CI/CD deployment, Life Cycle Management, ...
- RIC (both non and near real-time), with clarifications and updates on APIs, use cases and testing of interfaces,
- Cloud Infrastructure, with additional requirements on integration with the SMO via the O2 interface, Acceleration Abstraction Layer, Tooling, Time and Synchronization, Security, etc.
- Transport requirements for Fronthaul, Midhaul and Backhaul