Nokia's deal with DoCoMo shows 5G upgradability is more than just software
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Ovum view

Summary

Nokia recently announced a deal with NTT DoCoMo for LTE and 5G radio access network gear. Although 4G/5G announcements aren’t unique, this one was, due to the emphasis placed on the baseband unit (BBU) in the press release. It shows that being “5G ready” goes beyond just a software upgrade; 5G-ready solutions also must address the need for extra network compute capacity, which comes from the BBU.

Being 5G ready needs to include being capacity ready, not just software ready

No standard exists for measuring a vendor’s 5G readiness or upgradability. The term 5G ready is just as much a marketing term as it is a technical one. When base station vendors talk about 5G-ready solutions, they tend to focus on software that can add 5G to existing 4G radios and baseband units. Software upgradability helps future-proof network purchases, even when the radios being purchased only operate in spectrum bands that may not be used for 5G for many years to come. But, software upgradability is only part of this.

5G networks can support multiple gigabits of capacity versus LTE networks that top out at a gigabit. Using a common BBU to support both 4G and 5G can create a significant capacity crunch on the BBU’s ability to process the radio signal. Vendors need to make sure BBU capacity scales with the introduction of 5G into the network.

Nokia markets its AirScale BBU around capacity and scalability, claiming that AirScale has some of the highest commercially available capacity. Nokia also says the module design of the AirScale is a big plus for mobile operators because it allows them to scale capacity as demand grows. Nokia says this saves upfront costs for operators, because it lets them spend on network capacity only when it’s needed. The deal to supply AirScale BBUs to NTT DoCoMo serves as a proof-point for what Nokia has been saying about its 5G-upgradable solutions in terms of capacity performance and features of its BBUs.

When mobile operators talk to their vendors about 5G-ready networks, capacity roadmaps should be just as important as software and feature roadmaps. Just enabling 5G software won’t do much good if the rest of the network behind the radio isn’t ready to manage the increased traffic load.

Appendix

Further reading

2018 Trends to Watch: Radio Access Networks, SPT002-000023 (December 2017)

"Nokia says its architecture-driven 5G approach is unique," SPT002-000031 (December 2017)

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We hope that this analysis will help you make informed and imaginative business decisions. If you have further requirements, Ovum’s consulting team may be able to help you. For more information about Ovum’s consulting capabilities, please contact us directly at consulting@ovum.com.

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