Global RAN Build Spending Forecast, 2020-2025: *LTE, 5G and Open RAN in the U.S., Europe and Asia Pacific*

Market Study
Second Quarter, 2021

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Abstract

5G has been launched by many mobile operators in the U.S., Europe and the Asia Pacific region. The first step of the evolution to 5G involves the RAN (Radio Access Network) with the deployment of the first part of the 3GPP Release 15 standard, 5G NR (New Radio). The next step will be to deploy the new packet core and subsequent 3GPP releases.

Historically, the majority of build spending on the mobile network has been for the RAN and this is not expected to change as 5G is deployed. Therefore, if the wireless industry wishes to cut the cost of building and operating mobile networks, savings must be made in the RAN if significant benefit is to be realized. Many in the industry believe that Open RAN can provide this RAN cost savings.

This market study presents a five-year forecast of RAN build spending in the U.S., Europe and Asia Pacific, which is further split by 4G / 5G RAN spending and traditional / Open RAN spending. The study also includes a status update on auctioned 5G spectrum and 5G network deployments in the three regions and a discussion of Open RAN, virtualization, edge computing and new RAN technologies such as massive MIMO and beamforming.

Key questions addressed in this market study include:

- How big is the RAN opportunity in the U.S., Europe and Asia Pacific in the next five years?
- What portion of RAN spending will be for Open RAN?
- What is the share of RAN spending for LTE and 5G?
- What are the key capabilities for 5G networks and what are some of the goals and use cases for 5G?
- What is the status of the major mobile operators' 5G networks?
- What are some of the technologies being used to support the deployment of 5G RAN, such as dynamic spectrum sharing, MIMO and beamforming?
- What are the new architectures that are being used to evolve the mobile network and support 5G, such as Open RAN, virtualization and mobile edge computing?
- Who are some of the vendors in the Open RAN ecosystem?

Who should read this report?

- Mobile operators

- Infrastructure OEMs
- Small cell product and solution vendors
- Backhaul service providers and equipment OEMs
- Financial analysts and investors.