

**U.S. Mobile Network  
Infrastructure  
Spending Forecast,  
2020-2025: *Building  
5G***

Market Study  
First Quarter, 2021





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# **U.S. Mobile Network Infrastructure Spending Forecast, 2020-2025: *Building 5G***

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## Market Study

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## Abstract

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5G has been launched in the U.S., but 5G networks will take many years to fully deploy. As a result, LTE will continue to carry the majority of U.S. mobile data traffic for the next few years, even as mobile operators' build spending is primarily targeted at 5G.

This market study presents a forecast for the cost of building, deploying and operating LTE and 5G networks in the U.S. from 2020 through 2025. Included is a mobile network infrastructure build forecast, which is detailed by mobile network component (RAN, front/backhaul, and core) and generation (LTE and 5G). The RAN build component is further detailed by Open RAN and traditional RAN. The study also includes a forecast of network operating costs.

In addition to the forecasts, the market study provides detailed information on 5G networks, Open RAN, virtualization, and edge computing, as well as a status update on the 5G network deployments in the U.S.

Key questions addressed in this market study include:

- How will the amount of data traffic carried on LTE and 5G networks grow in the U.S. in the next five years?
- How big is the LTE and 5G infrastructure opportunity in the U.S. in the next five years?
- What is the share of infrastructure spending for the network components of RAN, fronthaul/backhaul, and core?
- What portion of RAN spending will be for Open RAN?
- What is the share of infrastructure spending for LTE and 5G in the next five years?
- What are the expected mobile network operating costs in the next five years?
- 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 U.S. mobile operators' 5G networks?
- What are some of the technologies being used to support the deployment of 5G, 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 should read this report?

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

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