U.S. Mobile Network Infrastructure Spending Forecast, 2018-2028: *The 5G Era*

Market Study
Second Quarter, 2019

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Abstract

The first 5G networks have now been launched in the U.S., with many more to come over the next few years. 5G network deployment will not be complete in a year or two, but will instead 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.

This market study presents a forecast for the cost of building, deploying and operating LTE and 5G networks in the U.S. beginning in 2018 and continuing through 2028. Included is a mobile network infrastructure build forecast, which is further detailed by mobile network component (RAN, front/backhaul, and core) and generation (LTE and 5G). The study also includes a forecast of network operating costs. In addition to the forecasts, the market study provides detailed information on evolving mobile network architectures, 5G networks, and how the U.S. mobile industry is deploying 5G.

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 ten years?
- How big is the LTE and 5G infrastructure opportunity in the U.S. in the next ten years?
- How fast will 5G network spending grow in the next ten years in the U.S.?
- What is the share of infrastructure spending for the network components of RAN, fronthaul/backhaul, and core in the next ten years?
- What is the share of infrastructure spending for LTE and 5G in the next ten years?
- What are the expected mobile network operating costs in the next ten years?
- What are the various 3GPP standards leading up to 5G and what are they likely to contain?
- What is 5G? How is it defined and/or viewed right now? What are the key capabilities for 5G networks?
- What are some of the goals and use cases for 5G?
- How will U.S. mobile operators migrate from their 4G LTE networks of today to tomorrow's 5G networks?
- What have the major U.S. mobile operators done to trial and prepare for 5G? When did they launch/will they launch their initial 5G networks?

- What is Non-standalone New Radio (NSA-NR)? How do MIMO and beam steering impact 5G networks?

Who should read this report?

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