

**U.S. Mobile Network
Infrastructure
Spending Forecast,
2016-2026: *Moving
from LTE to 5G***

Market Study
Fourth Quarter, 2016





U.S. Mobile Network Infrastructure Spending Forecast, 2016-2026: *Moving from LTE to 5G*

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Abstract

Long Term Evolution (LTE) networks are now firmly established in the U.S. with the majority of mobile subscribers using LTE devices. To meet the increasing demand for mobile bandwidth, especially to support video, the larger mobile operators are in the process of upgrading their LTE networks, and densifying the cellular architecture. The next major iteration of mobile networks will be 5G, due to be deployed at the end of this decade.

iGR forecasts that the LTE market will continue to grow and dominate the U.S. mobile landscape for the foreseeable future. *iGR* expects that subsequent versions of LTE (and the associated new features) will form the basis of new 5G networks in the next few years. To support additional LTE capacity, mobile operators are increasingly refarming 2G spectrum, as well as acquiring additional spectrum resources through auctions and private transactions.

The demand for mobile data bandwidth will continue to rise and mobile operators are continually balancing their network spending between coverage and capacity. The engineers strive to provide sufficient coverage to be competitive and sufficient capacity to meet the needs of the growing subscriber base, while minimizing unnecessary network spending. As well as spending on new network builds, this includes minimizing network operating costs wherever possible.

This report forecasts the LTE infrastructure investment and network operating costs, and presents a forecast for the cost of building, deploying and operating 5G networks in the U.S. beginning in 2017 and continuing through 2026.

The sideshow with 5G, of course, is the marketing associated with the term itself. Will history repeat itself? Or will operators show some restraint and only market their improving networks as 5G when the ITU-R releases its IMT-2020 5G standard in the 2020 timeframe?

Key questions addressed in this market study include:

- What are the various 3GPP standards leading up to 5G and what are they likely to contain?
- What are some of the goals and use cases for 5G?
- What is 5G? How is it defined and/or viewed right now?
- What is in 5G? When will 5G happen?
- How close are U.S. LTE networks to 5G now?

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- How will U.S. mobile operators get from their 4G LTE networks of today to tomorrow's 5G networks?
- How much will it cost to deploy 5G in the U.S.?
- How will the amount of data traffic carried on LTE networks grow in the U.S. in the next five years?
- How much mobile data is each mobile connection expected to consume and how does this change?
- What is the impact of densification on mobile network spending?
- How much are U.S. operators investing in LTE?
- How big is the LTE and 5G infrastructure opportunity in the U.S. in the next ten years?
- What is the share of LTE infrastructure spending on the network components in the next ten years? What is the share of 5G?
- How big are the mobile network operating costs in the next ten years?

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.

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