



5G Adoption Analysis

Track 5G uptake for seamless transition to 5G networks



5G ADOPTION ANALYSIS DELIVERS:

- Application service continuity across LTE and 5G access
- Seamless transition path to a common 5G core by supporting both a 4G/5G NSA and a 5G SA network
- 5G early adoption from the 4G market by creating analytical insights that can be used to promote the uptake (from existing customers and from competitors)

MARKET OVERVIEW

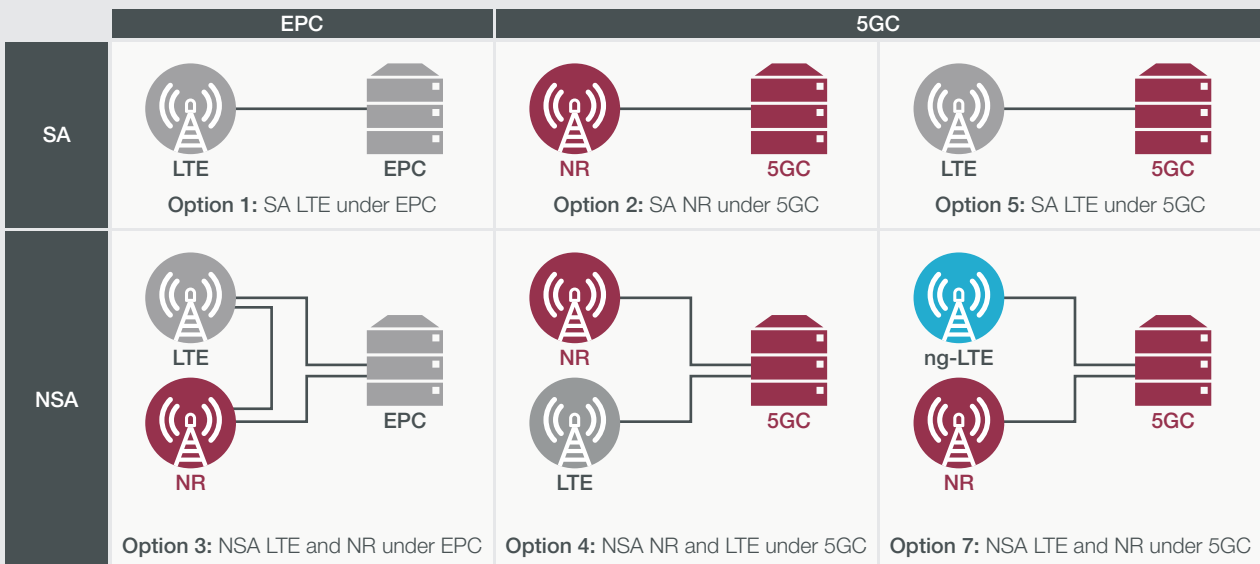
5G represents a game-changer for mobile service providers, as it will disrupt existing service plans and the traditional role as a connectivity provider, and create an opportunity to add value in the new 5G-based digital economy.

5G networks are coming online across the world at an unprecedented rate, with 5G cementing itself as the fastest-growing wireless generation to date. Largely, this adoption is driven by the wide number of 5G-capable devices on the market and the 5G promise of better reliability and speed.

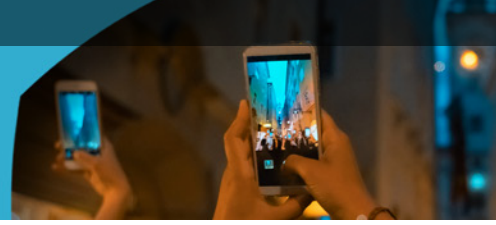
As with any other tech turn the 5G transition journey is complex. The path for service providers to achieve a single 5G core network is not straight or singular – many different options are available (Figure 1).

Figure 1

Six 5G deployment options (Source: GSMA)



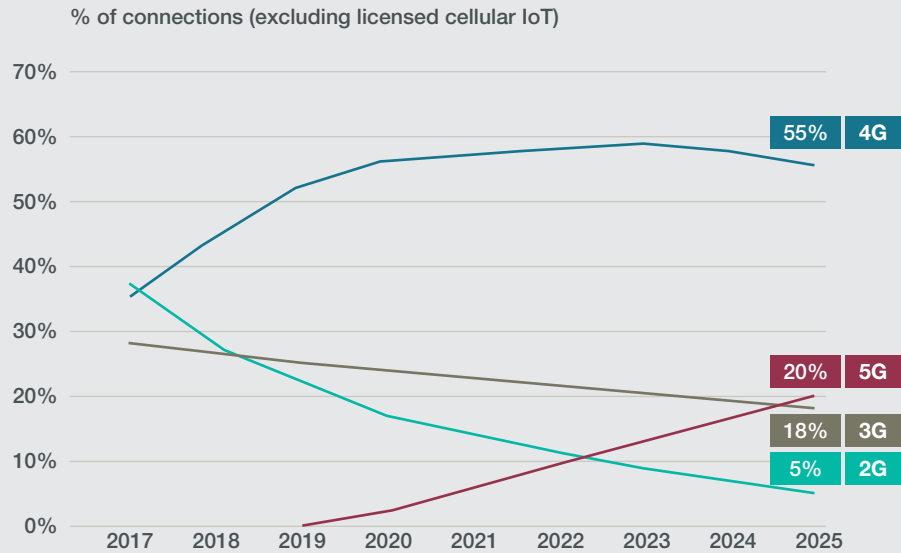
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The challenge is further compounded as service providers will have to support both 5G dual mode (non-standalone) and 5G standalone devices, along with existing 4G devices – totaling in the hundreds of millions – for several years (**Figure 2**).

Figure 2

Predicted support for multiple device generations



Multi-G support will be needed for a while

Source: Statista, A Mobile Connected World 202

At the same time, in order to recoup investment and propel 5G networks to profitability as well as meeting customers' 5G expectations, transitioning must be completed with ease and careful consideration. This thoughtful approach will require visibility into the subscriber penetration, coverage gaps across 3G, 4G, and 5G radio access.

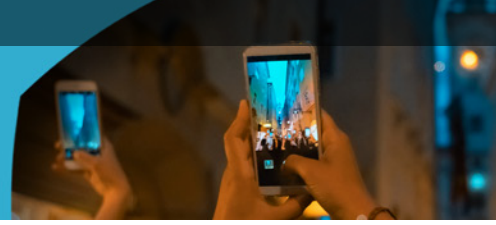
With this information, service providers can optimize network investments and know when to reallocate resources, as well as know when to take the leap and build out a full 5G standalone network. By taking this approach, service providers can ensure service continuity and customer satisfaction, enable more diverse user experience, and offer unique enterprise services, allowing them to shift from connectivity provider to value-added participant.

USE CASE OVERVIEW

Sandvine's 5G Adoption Analysis use case answers the fundamental question for 5G service providers: "How fast are my customers migrating to my 5G network?"

More than that, it is an important tool for service providers as they embark on their 5G journey, arming them with the visibility needed to ensure the transition is seamless, efficient, and delivers a performance expected by customers.

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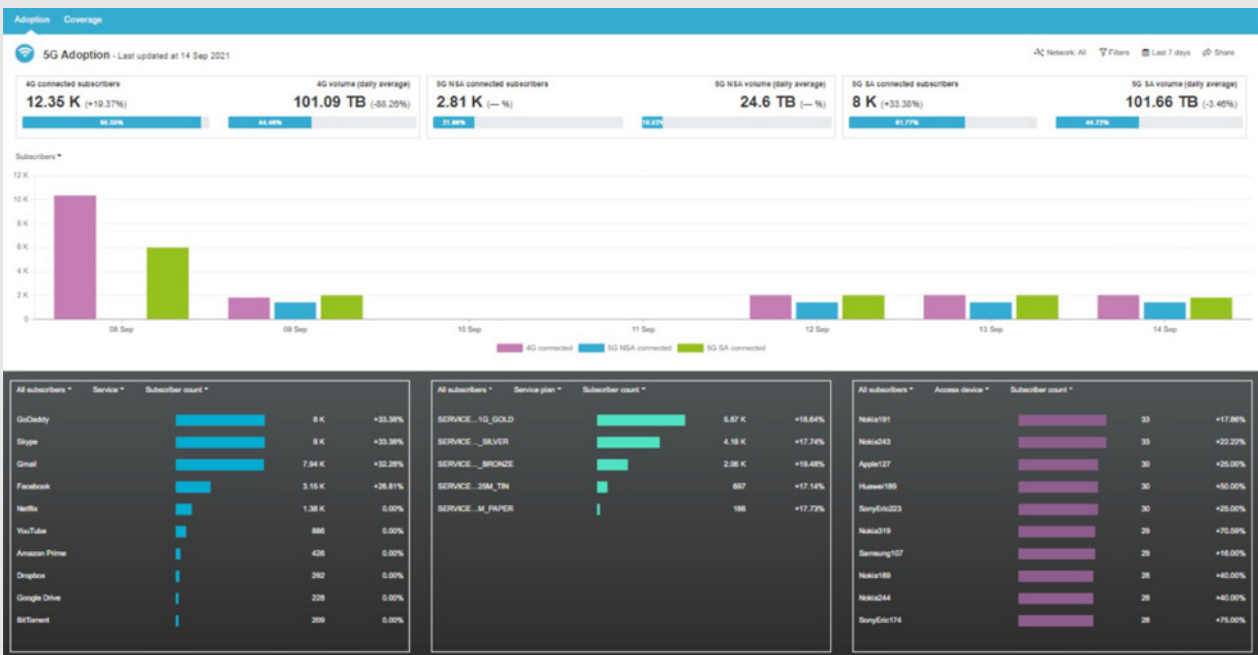
This use case leverages Sandvine's existing industry-leading classification capabilities to provide a comprehensive view of 5G adoption, including:

- 4G, 5G NSA and SA Connected Subscribers
- 4G, 5G NSA and SA Volume
- Trend for the connected subscribers and volume
- Top 10 Service Categories and Services for each access type
- Top 10 Devices in each access type
- Top 10 Plans for each access type
- Network Performance KPIs for each of the access types including latency and packet loss
- Heat map for 4G and 5G connected locations
- Subscribers count, Volume distribution and 4G/5G location distribution for each location cluster on the map

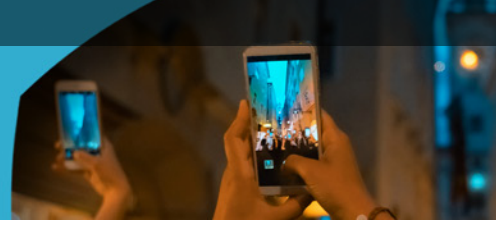
More importantly, it tracks this over time (as little as the last 7 days and up to 12 months) and location, providing the overall trends to determine when and how further investments should be made to be best serve customers. All of this important data is visualized in Sandvine's Active Network Intelligence Portal (**Figure 3**), giving an overall view with an option to drill down further.

Figure 3

5G adoption view in the ANI Portal



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This use case enables service providers to:

- Differentiate and compare 5G-connected subscribers with subscribers connected via other access technologies like 4G
- View into different stages of 5G transition to help facilitate the journey
- Ensure 4G/5G-NSA/5G-SA service continuity
- Monitor usage and quality trends
- Understand the impact on service plans and different customer segments
- Create 5G-specific plans based on what is wanted by consumers

All of which positions service providers to roll out profitable, efficient, valuable 5G networks that allow for a better role in the 5G value chain.

ABOUT SANDVINE

Sandvine's cloud-based Application and Network Intelligence portfolio helps customers deliver high quality, optimized experiences to consumers and enterprises. Customers use our solutions to analyze, optimize, and monetize application experiences using contextual machine learning-based insights and real-time actions. Market-leading classification of more than 95% of traffic across mobile and fixed networks by user, application, device, and location creates uniquely rich, real-time data that significantly enhances interactions between users and applications and drives revenues. For more information visit <http://www.sandvine.com> or follow Sandvine on Twitter @Sandvine.



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