

Enea unveils top trends shaping 5G Mobile Data in 2021

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Blinding encryption protocols, 5x mobile cloud gaming data traffic, a refocused 5G core and “7 day weekend” traffic after people switched to lockdown home working are among the trends impacting mobile data in 2021. Enea gathered these insights on what global operators can expect this year from a cross-section of mobile industry thought leaders including AT&T, Telefonica, RootMetrics, Tutela, Analysys Mason, Strategy Analytics and ABI Research.

The major trends include:

Legacy of Covid-19 – ‘7 day weekends’: After being forced to work from home during lockdowns, people continue to work remotely – and a new mobile traffic phenomenon has emerged as operators face a “7 day weekend”. Demand for data has grown exponentially – all week long – in suburban areas, while demand has fallen in business districts on weekdays. Many operators expect this trend to continue beyond 2021 and even post-pandemic.

Use case benchmarks: Covid-19 has also impacted how mobile operators are benchmarked by companies such as RootMetrics and Tutela. In their quest to become #1, operators will have to consistently manage new use case-based benchmarking criteria. In 2021 the top use cases for 5G are

predicted to be cloud gaming, group video calling, including watch parties, and for enterprises, private 5G networks.

Subscriber expectations have also changed during the lockdowns. Consumers have become more tech-savvy and discerning about connectivity. Their expectations have soared and operators will be blamed for poor user experience – those video calls to the grandkids need to be seamless!

Blinding encryption: Operators could be blinded by new OTT encryption protocols being introduced in 2021 – even before standards are agreed. Currently over 85% of traffic on mobile networks is encrypted and operators have relied on traditional optimization technology to manage this so far. This will change dramatically during 2021. The Internet Engineering Task Force (IETF) will introduce new protocols in the shape of DoH (DNS over HTTPS), DoT (DNS over TLS) and eSNI (encrypted Server Name Indication). Some countries such as China and Russia have banned these protocols, yet DoH could go mainstream around the middle of 2021 as OTTs increasingly look to centralize and control the internet via encryption.

Collaborative mobile cloud gaming: Operators will face 5x increase in mobile cloud gaming traffic by the end of 2021. Gratifying gamers and shocking parents, the WHO recommended gaming as a way to reduce the spread of COVID-19. Gaming was already on an upward trajectory even before WHO's blessings. As connectivity providers, a number of operators including AT&T, Verizon and T-Mobile have launched complementary services such as self-configuring adaptive networks, identity verification to stop cheating and the architecture for gamers to easily 'flip' a game from console to phone to PC for multiplatform gameplay. In 2021, the mobile cloud gaming ecosystem will expand beyond the behemoths of Google, Microsoft, and Amazon and incorporate smaller independent gaming companies.

Refocused 5G priorities: Many European and North American operators have deployed 5G non-standalone (NSA) networks with a view to monetizing a limited number of use cases. As lockdowns proliferated, enterprises rushed to digitalize great swathes of their operations – increase the number of use cases and connected devices. This increase in devices coming online and the subsequent surge of information these connections will generate requires effective data management. In 2021, in anticipation of this, operators will invest in 5G core infrastructure – for both NSA and standalone (SA).

Indranil Chatterjee, Chief Customer Officer at Enea said: "Last year, operators faced significant challenges and yet they provided a valuable lifeline to millions across the world. 2021 provides both opportunities and challenges, so we brought together some of the brightest minds in the industry to explore these in detail. I would like to thank AT&T, Telefonica, RootMetrics, Tutela, Analysys Mason, Strategy Analytics and ABI Research for their invaluable contribution to this research."