

THE JOURNEY TO 5G: HOW CAN CSPS NAVIGATE THROUGH THE HURDLES?



New avenues unlocked with 5G

5G is the next big thing in the realm of technology, bringing the future closer than ever. It goes beyond the 4G/LTE mobile networks to give faster speeds, higher bandwidth, wider coverage, and lower latency. What does that mean for the telecom industry? The fifth-generation technology has resulted in dramatic changes in the way it provides services and earns revenue.

5G is a game-changer for telcos, but its success depends on how effectively the network can be leveraged to enable the digital transformation of businesses. 5G will give telcos the room to experiment with how they provide connectivity, allowing them to utilize their investments better and provide differentiated services. It will unlock enhanced network functionalities such as edge computing and network slicing that will increase its value proposition.

The superfast network is estimated to have a market size of US\$619 billion by 2026¹, and will enable a slew of applications in video, cloud computing, augmented/virtual reality, industry automation, and autonomous vehicles. 5G will power IoT devices, connected ecosystems like smart homes and cities, and will facilitate mission-critical applications like smart healthcare. By 2030, these use cases could account for US\$156 billion in incremental annual revenue, according to Morgan Stanley report.² Furthermore, an EY report says that nearly 70% of telco leaders believe that 5G and IoT will be the frontrunners of the digital transformation drive.³

Unlike previous networks, 5G has allowed telcos to transform from just network providers to digital service partners for enterprises. Agriculture, manufacturing, transportation, healthcare, and energy are just some of the avenues that will open up for telcos to expand their businesses. Consequently, telcos must reimagine their business models to cater to customer demands and design solutions for enterprises, which will account for 40% of their revenue by 2024.⁴ While telcos are excited to monetize 5G-driven business opportunities through collaboration with various partners, there are several hurdles in the way.

5G rollout – a marathon with hurdles

The lucrative picture painted by 5G isn't all that it seems to be. Like every coin has a flip side, so does 5G.

Telcos is one of the industries that have the highest Capex in the world (approximately 16% of revenues⁵). This is a challenge that has seemingly plagued Telcos for a while and is one which they are yet to find a solution for. With all the use cases 5G has to offer, the demand for higher bandwidth and reliability is growing. Telcos give customer experience top priority as it can influence the growth and profitability of their business, and is vital for monetizing their investments.

5G brings with it several moving parts that make it a complex network to begin with. Large volumes of data entail risks in the form of data transmission issues, vulnerability to fraudsters, and network interruptions, among others. The addition of noise to the voluminous data leads to insights of value being overlooked. While network densification (increasing capacity in an area) and virtualization (shifting physical processes to virtual environments) reduce costs by 70%⁶, it further aggravates the network complexity.

The new revenue streams for telcos will foster new partnerships with various stakeholders. Businesses of both telcos and their partners are bound to grow multifold. However, managing these revenue streams can be complex and can lead to unbilled revenue, revenue leakage, and potential losses for telcos. Budding partnerships also carry the risk of onboarding low-performing partners that impact the telco business.

Tackling these challenges requires an amalgamation of various technologies such as AI, ML, automation, and IoT, among others. Ensuring a smooth rollout of 5G requires the right strategy where the right solutions are leveraged to augment the growth journey.

The four pillars of the 5G journey



The journey to 5G is complicated and requires a step-by-step approach that involves the planning of resources, assurance of revenue, security from risks and frauds, and ensuring steady growth through partnerships. Subex offers an array of products and services that help telcos experience a smooth ride through each phase of their 5G journey.

Plan

While 5G-enabled enhanced mobile broadband (EMBB) caters to customers, massive machine-type communications (MMTC) and ultra-reliable and low-latency communications (URLLC) cater to enterprises, the latter of which has opened new avenues for telcos.

Accurate network investments are crucial for a successful 5G journey and will give telcos a competitive edge and improve customer experience. However, these investments are a significant addition to both CAPEX and OPEX. Any inaccuracy in the investment planning process can impact the financials of the company and create network inefficiencies.

Furthermore, such inefficiencies could dent the reputation of the company. With 5G yet to globalize, telcos must smartly plan their costly infrastructure investments to avoid wastage of financial resources and ensure good customer experience and ROI.

Through ROC Capacity Management, Subex leverages intelligent data management, advanced automation, and domain-driven data science to offer real-time insights and accurate network capacity updates. This helps network planners proactively make accurate decisions in each phase of the capacity management process of assessing, planning, and optimizing for 5G.

Assure

The advent of 5G will foster investments by telcos, new partnerships, and innovative business models to offer various digital services of high quality. However, it will also present new risks and challenges for telcos, which could translate to losses in revenue, opportunity losses, and reputational losses, if not dealt with beforehand. Amidst the skyrocketing expenses, stagnating revenue, low ROI, and rising customer expectations, the risks associated with new revenue streams are an added burden for telcos.

As telcos move towards business assurance, Subex assures them of their revenues through its ROC Revenue Assurance solution, which also assures them their margins. The ROC Network Asset Management solution helps telcos optimize their CAPEX, utilize new and existing assets efficiently, and assures them of network assets. Subex's ROC Capacity Management overlooks customer experience, bringing out actionable insights on the areas to improve based on their daily usage. The solution's experience analytics capabilities will assure telcos of a good customer experience.

With an array of solutions, Subex helps telcos become beyond 5G-ready, future-proofing their businesses from risks to ensure long-term revenue and growth, as they tread the uncharted waters of 5G.

Secure

5G boasts of increased robustness compared to the previous generations of mobile networks. Although traditional fraud management systems can adequately support telcos, the explosion of data with 5G will give rise to complexities in security.

The exponential increase in the number of connected devices increases the vulnerability to cyberattacks. Digital subscriptions via eSims, 5G handsets, IoT devices, and digital partnerships are byproducts of 5G that are also targets for fraudsters both within and outside the network.

Subex strives to ensure telcos have sound 5G security measures in place to prevent losses in revenue and bad customer experience. ROC Fraud Management by Subex goes beyond a traditional rules engine with its data intelligence, advanced machine-learning capabilities, easy integration, and scalability. It prioritizes information security in both the retail and enterprise aspects of telcos' businesses. Subex's all-round protection against various kinds of frauds will enable telcos to proactively detect fraudulent activities and prevent them.

Grow

With 5G, the wide spectrum of new business opportunities for telcos will give rise to new partnerships arising from the 5G provisioning and business sides of the network. The blending of 5G, MEC, and artificial intelligence will provide a potent opportunity for CSPs to create much-needed revenue streams. It will support unique and exciting use cases in almost every industry, from manufacturing and automotive to healthcare and agriculture. In the digital era, finding the right partners and building strong partnerships is the key to growth.

Some of these partners will be first-timers to 5G and the telecom industry as a whole. A good partner management solution enables telcos to identify the right partners and manage the partner lifecycle efficiently and cost-effectively. It is risky to onboard new partners, and thus requires an automated onboarding process and a comprehensive partner scoring system to manage numerous partners and minimize blocked revenue.

Subex's ROC Partner Management enables quick partner onboarding and provides a partner dashboard for partner self-care and complete visibility of revenues. With its dynamic rating, ticket handling capabilities, and in-built analytics, the solution improves partner experience, enabling telcos to achieve business growth by effectively managing and monetizing new partnerships, as they venture into new businesses and revenue streams.

Looking beyond

As telcos prepare for the fifth-generation technology, they are cautious because of the plateauing revenue and lackluster performance witnessed with the 4G network. 5G has offered a pathway to discovering new, unimaginable opportunities for telcos and businesses by leveraging its fast speed, high bandwidth, and low latency.

However, according to GSMA, 5G will account for only 20% of global mobile connections⁷, which is due to the partial rollout of the network. For developing countries to reap its benefits, they must invest in network infrastructure that supports 5G. Currently, building infrastructure that supports each of 5G's use cases or building one kind of infrastructure that meets all needs isn't feasible. But, appropriate planning can lead to cost savings and a smooth transition to 5G.

This smooth transition to 5G, however, entails planning, assurance of revenue, ensuring future growth, and security against risks. With its eclectic, all-encompassing array of products and services, Subex can partner with telcos and support them at any of these stages as they embark on their 5G journey.

References

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About Subex

Subex is a pioneer in enabling Digital Trust for businesses across the globe.

Founded in 1992, Subex has spent over 25 years in helping global Communications Service Providers maximize their revenues and profitability.

With a legacy of having served the market through its world-class solutions for business optimization and analytics, Subex is now leading the way by enabling all-round Digital Trust in the business ecosystems of its customers. Focusing on privacy, security, risk mitigation, predictability and confidence in data, Subex helps businesses embrace the disruptive changes in the business landscape and succeed with Digital Trust.

Subex leverages its award-winning product portfolio in areas such as Revenue Assurance, Fraud Management, Network Analytics, and Partner Management, and complements them through its digital solutions such as IoT Security and Insights. Subex also offers scalable Managed Services and Business Consulting services.

Subex has more than 300 installations across 90+ countries.

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