

Generative AI for Telcos

Bell Labs Consulting forecasts productivity increase between 13% to 40%

Quick take

When Open AI launched ChatGPT, it took the world by storm so much so that Generative AI became a common word not just in technology circles, but in almost every industry looking to capture and capitalize on the benefits of AI/ML.

Generative AI and what it means for Telcos

Generative AI is a branch of AI that can create new and realistic (or fake) content (text, images and audio) from various trained data. There are several Generative AI models the most popular of them is the Generative Adversarial Networks (GAN) or transformer models.

For telcos looking to capitalize on its massive amount of untapped data and transform towards Autonomous Networks, Generative AI can be a game changer in accelerating transformation.

Bell Labs Consulting has analysed how Generative AI can play a vital role in telcos transformation and has classified use cases for:

1. Faster access to information.
2. Synthesis of data to bring meaningful insights.
3. Leveraging insights to provide forecasts, contextual communications, and guided actions.

Accordingly, Bell Labs Consulting has studied use cases and its role in telcos' functions. Below are some of the functions and its current challenges that can be addressed using Generative AI.

Customer Care and Operations

Customer Care and Operations with its high demand for better customer experience and continual focus on operating expenses reduction, can highly benefit from Generative AI. Using Generative AI can speed up shift-left customer experience, transformation around agent replacement and augmentation. Bell Labs Consulting analysis has shown that telcos can expect to see a productivity increase between 25% to 40% in Customer Care and Operations when implementing Generative AI.

Network Design

Network and Service Design with its challenges of collecting and processing vast amounts of information to forecast trends and provide future proof sustainable design can benefit greatly from the introduction of Generative AI. With Generative AI, telcos can develop new and improved forecasts and identify novel insights towards a future proof design. Bell Labs Consulting forecasts a likely productivity increase in the range of 14% to 22% for Network and Service Design with Generative AI driven use cases.

Network Planning and Optimization

Network Planning and Optimization comes with a unique set of challenges considering the risk of outages and disruption of service. There is a need to process immense volumes of data which can be time consuming, but it must be done cost effectively. Generative AI can help transform Network Planning and Optimization through its capabilities of processing vast quantities of data and synthesizing it for coverage, interference detection, anomalies and more. Bell Labs Consulting forecasts a productivity boost in the range of 17% to 24% for Network Planning and Optimization when utilizing Generative AI use cases.

Testing

Testing has a need for automation due to requirements for testing as many use cases and configurations as possible. Due to the many challenges in testing such as considering different use cases, scope of work documents, product test cases, configuration test cases and many more scenarios, testing has the potential to benefit from automation using Generative AI. By leveraging test code developments and automated test scripts, Bell Labs Consulting analysis shows testing productivity to increase in the range of 13% to 25% with Generative AI use cases.

The Bell Labs Consulting approach

Bell Labs Consulting through its future back approach, leveraging its strong technology expertise and techno-economic capabilities in both telecom and IT has been helping telcos to:

1. Assess the current state of operations.
2. Benchmark against leading operator and industry trends.
3. Target a pragmatic future state of operations leveraging Generative AI.
4. Identify gaps to reach the future state, that includes Generative AI use cases, investments, technology architecture and more, including Cost and Benefit Analysis.
5. Pragmatic roadmap that can look for a quick win in the short term with a targeted focus for mid and long terms.

Are you looking to see how Generative AI could play a vital role in your transformation?

For further information [please contact us here](#)

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Service providers, enterprises and partners worldwide trust Nokia to deliver secure, reliable and sustainable networks today – and work with us to create the digital services and applications of the future.

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