



# Modernizing Infra and Digitizing Processes to Lead the 5G Revolution

A global telecom company saved over USD 1 Billion through digitization, automation, and optimization.



# Breaking the (data) speed limit through 5G disruption

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With a range of services encompassing wireless & wireline communication, broadband internet, and television services, the client is one of the largest American telecom companies, with a mission to empower and connect consumers, businesses, and government entities, underlining their commitment to delivering cutting-edge solutions in the world of telecommunications.

Within the rapidly evolving telecom industry, where technological disruptions happen at a breakneck pace, leaving little room for delay, swift and decisive investments and the continuous embrace and adoption of new technologies are imperative to maintain a competitive edge and retain customers. Catalyzed by the advent of 5G technology and driven by the demand for higher speeds and reliable Quality of Service (QoS),

the client was determined to be at the forefront of the 5G revolution, aiming to establish a competitive advantage over its peers. The goal was to achieve a rapid infrastructure upgrade by constructing 20,000 cell sites by the end of 2020, ensuring a first-to-market position in the 5G landscape.

across various critical projects in their value chain, combined with a profound understanding of the client's ecosystem and deep expertise across its platforms, Brillio emerged as the ideal fit for this pivotal role.

The client sought a consultative partner to guide the transformation of their network planning and engineering systems from conceptualization to tangible reality and found Brillio to be a good fit.

# From assessment to achievement: The blueprint for designing complex infrastructure

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Before embarking on significant investments, it is essential to thoroughly assess the existing infrastructure's capacity to support the desired level of scalability. While the client was collecting data, it was apparent that this data was scattered across legacy systems and spreadsheets. In pursuit of a seamless upgrade and impeccable functionality, the combined teams extended their efforts beyond mere planning. Together with the client, the integration of geospatial data from various sources was facilitated, consolidating it into a unified, single source of truth.

In the realm of large-scale infrastructure projects, evaluating the current state represents only the initial phase. In collaboration with the client, a strategic decision was made to embark on the development of a future-ready network planning and capacity platform, with Brillio entrusted to lead this endeavor. To achieve this objective, a comprehensive solution blueprint was meticulously crafted, tackling each challenge along the way, from planning to assurance, and rigorously ensuring that every solution selected was precisely tailored to meet the client's unique needs.

This collaborative effort commenced at the conceptualization stage, culminating in the creation of a Single Pane of Glass, which seamlessly integrated more than 18 modules spanning various business systems related to cell towers, buildings, and real estate. Within this unified platform, operations were harmonized to enhance efficiency, enabling the streamlined management and prioritization of maintenance and restart activities with a high degree of automation.

Furthermore, workflow processes underwent automation and centralization, leading to improved forecasting, budgeting, and resource allocation. A significant achievement was the successful expansion of the client's 5G Ultra-Wideband services, resulting in the launch of approximately 20,000 cell sites across multiple markets, marking a substantial milestone.

# Driving business transformation with Brillio's three-phased deployment strategy

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Through Brillio's proprietary three-phased deployment strategy, the project not only met but exceeded aggressive deployment schedules, optimizing resource allocation. Below, we outline the three key stages of this approach:

## **Phase 1: 5G network planning for accelerated deployment**

The digitization of disparate data sets, mostly hidden behind spreadsheets & region-specific processes, integrated extensive geospatial data and correlated & analyzed data across markets for generating insights.

## **Phase 2: Digitized 5G network enablement**

The decommissioning of four large applications and the rolling out of the cell tower platform across 21+ geo-markets, digitizing and automating

real estate lease process, reduced PO creation time with purchase order automation, and increased productivity gains through work steps optimization.

## **Phase 3: AI/ML-Powered 5G Network Assurance**

The automation of the Health Check of eNodeB's process with a high level of efficiency, developing custom dashboards that enabled the network and field service team to remotely manage key tasks in maintenance activities. Antenna alerts that added the ability to manage the highest priority customer-impacting site issues using key metrics were incorporated, maximizing field team productivity through ML-led initiatives to provide optimized and prioritized tasks, maximizing productivity.

A digital transformation project in its true essence, the telecom giant unified datasets, digitized and automated processes and infused machine learning to optimize work.

# Innovating with impact.

## A billion-dollar transformation

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This unified platform serves multiple value streams or products, catering to a user base of 15,000 individuals. The architecture was revamped through the implementation of microservices and DevOps principles, ensuring its readiness for the future.

The initiative yielded substantial cost savings, estimated at over \$1 billion. These savings encompass various facets of the Cell Towers, Engineering, and Real Estate business functions. This was achieved through the automation of workflows and the optimization of processes, resulting in enhanced efficiency and resource allocation.

One remarkable outcome of the transformation was the reduction in the number of work steps required to achieve tasks. The process saw a reduction from 840 to just 57 steps, ensuring a smooth and frictionless experience throughout the value stream.

Furthermore, a noteworthy accomplishment emerged from the licensing aspect of Cell Tower Engineering, leading to \$10 million in savings. This not only exemplifies the cost-effective nature of the transformation but also underscores its strategic value in optimizing expenditure.

**90%** reduction in time for program mapping and resource allocation

**30X** productivity gains

**80%** improvement in efficiency



## ABOUT BRILLIO

At Brillio, our customers are at the heart of everything we do. We were founded on the philosophy that to be great at something, you need to be unreasonably focused. That's why we are relentless about delivering the technology-enabled solutions our customers need to thrive in today's digital economy. Simply put, we help our customers accelerate what matters to their business by leveraging our expertise in agile engineering to bring human-centric products to market at warp speed. Born in the digital age, we embrace the four superpowers of technology, enabling our customers to not only improve their current performance but to rethink their business in entirely new ways. Headquartered in Silicon Valley, Brillio has exceptional employees worldwide and is trusted by hundreds of Fortune 2000 organizations across the globe.



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