

FIVE *for* 2025

**TRANSFORMATIVE TECH TRENDS THAT WILL
DEFINE INDIA'S JOURNEY IN THE YEAR AHEAD**



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**"TELCOS MUST CUT LEGACY
COSTS TO INVEST IN FUTURE
TECHNOLOGIES"**

VIKRAM PURANIK, GlobalLogic



Rewiring telecom's backbone for SMART, future networks

5G and GenAI are redefining telecom BSS, enabling smarter systems, real-time insights, and personalised services to drive growth and innovation



BY SACHIN SARAF

As digital transformation accelerates, the telecom industry is evolving to meet the demands of increasingly connected consumers. At the heart of this shift lies Business Support Systems (BSS), the backbone of communications service providers. With the convergence of 5G technology and Generative AI (GenAI), BSS functionalities are being redefined to enable telecom operators to serve their customers better, optimise operations, and unlock new revenue streams.

According to a study by IMARC, the global market for OSS and BSS is projected to grow from USD 59.9 billion in 2023 to USD 142.9 billion by 2032, reflecting a compound annual growth rate of 9.8% over 2024–2032.

THE TRANSFORMATIVE ROLE OF 5G IN BSS

5G technology is emerging as a game-changer, offering speeds and low latency that earlier technologies could not match. Major events like the ICC World Cup have demonstrated the exponential rise in demand for streaming

high-quality, real-time experiences, with millions of viewers relying on mobile networks to stay connected to the action. Reports indicate that digital streaming platforms such as JioCinema and Disney+ Hotstar have experienced record-breaking engagement during such events, enabled by robust telecom network support.

Behind the seamless streaming of such events lies the critical role of Digital BSS. These systems address every aspect of the fray, from subscription management and billing to real-time analytics and customer relationship management (CRM). For instance, BSS ensures bandwidth allocation, subscription activation, and server scalability during high-traffic events, guaranteeing uninterrupted streaming.

Analytics within BSS also plays a vital role in delivering personalised recommendations, targeted promotions, and an enhanced customer experience. With the rapid adoption of 5G, communication service providers (CSPs) have an unprecedented opportunity to respond to the

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sharp rise in digital content consumption, especially in rural areas where widespread smartphone adoption is expected in the coming years.

GENERATIVE AI AS A DRIVER FOR SMART BSS

While 5G enhances connectivity, GenAI is revolutionising how communication service providers (CSPs) analyse and act on data. GenAI offers BSS a SMART (self-monitoring, adaptive, real-time and transformative) advantage, enabling smarter decision-making, automation, and enhanced customer experiences. According to a report by IDC, 62% of CSPs in the Asia-Pacific region are reallocating budgets toward GenAI initiatives. As the industry looks ahead, meaningful growth in the BSS segment will hinge on its seamless integration with GenAI—an essential step for CSPs aiming to stay competitive in a rapidly evolving landscape.

Self-monitoring and real-time adaptability: GenAI empowers BSS with self-monitoring capabilities, enabling the analysis of data patterns to identify potential issues before they escalate. This self-healing functionality enhances system reliability while minimising downtime. Additionally, GenAI operates in real-time, allowing CSPs to respond rapidly to sudden spikes in demand. For instance, it can suggest resource-allocation strategies for human managers to verify and execute, ensuring customer needs are met effectively.

Insights for network and service optimisation: With GenAI, telecom operators gain deeper insights into customer behaviour, enabling precise demand forecasts and personalised service offerings. These capabilities bring CSPs closer to optimising their networks. Beyond managing risks, such insights inform strategic decisions, such as forming partnerships with content providers or launching enterprise-focused solutions.

Synthetic data for enhanced analytics: Synthetic data, powered by GenAI, is a transformational trend in BSS. According to Gartner, 75% of businesses are expected to rely on synthetic data for analytics by 2026. Synthetic data simulates real-world scenarios for CSPs, enabling faster experimentation and innovation. Whether improving predictive analytics or creating more tailored customer experiences, the potential applications of synthetic data appear limitless.

UNLOCKING REVENUE POTENTIAL WITH GENAI AND 5G

Integrating GenAI and 5G within BSS opens up vast opportunities for CSPs to monetise advanced technologies such as network slicing, live streaming, augmented reality, and immersive gaming. With the aid of GenAI analytics, CSPs can process the massive amounts of data generated by 5G networks, uncovering valuable insights into customer preferences and usage patterns. These insights can be leveraged to develop customised offerings tailored to specific user needs, enhancing revenue potential.

For instance, telecom operators can offer seasonal high-speed data bundles during major sports events like the FIFA World Cup or ICC Cricket World Cup. These 5G-enabled packages ensure a seamless, buffer-free viewing experience. In this scenario, BSS systems are pivotal in enabling efficient charging, subscription management, and quality of service. Furthermore, analytical insights derived from BSS help optimise tariff structures, ensuring maximum returns for operators while enhancing customer satisfaction.

STRATEGIC IMPLICATIONS FOR THE FUTURE OF BSS

The convergence of 5G and GenAI is a technological upgrade and a strategic imperative for CSPs. By embracing GenAI-enabled SMART capabilities and harnessing the transformative power of 5G, service providers have the potential to transform BSS, evolving them from reactive systems into proactive engines for growth. Whether enabling seamless live sports streaming or driving customer engagement through personalised experiences, the marriage of these technologies is revolutionising the realm of telecom. They lead the charge with innovative GenAI-powered BSS solutions that enable telecom operators to stay ahead of the curve.

As pioneers of this transformation, 5G and GenAI promise a future where BSS leads rather than lags—creating new benchmarks and unlocking unprecedented potential in the telecom industry. 🌟

The author is EVP and Chief Operating Officer-DigiTech at Comviva.

feedbackvnd@cybermedia.co.in

