



No Shortcuts to Excellence: Achieving Precision and Efficiency with GenAI

In an industry as complex as ours, integrating GenAI technology requires a strategic approach where precision and operational efficiency are not just goals, but essentials. It requires CSPs to navigate a complex maze, from the meticulous data preparation, and fine-tuning of large language models (LLMs) to the strategic deployment within their core systems. In this process, there are no shortcuts - the objective is to ensure that the investment in these LLMs is fully justified by the value they deliver.

Building an accurate model

While GenAI's democratization makes AI more accessible to everyone, the essence of these

models means that inevitably, mistakes will occur. Moreover, while mainstream GenAI technologies can provide adequate solutions for a wide range of queries, their efficacy will be limited by the data on which the models rely on, as well as a lack of familiarity with the nuances of telecom use cases.

For CSPs in particular, the key to overcoming these challenges lies in setting up the right data infrastructure and adopting a verticalized Large Language Model (LLM). This is crucial for getting accurate, relevant, and timely responses.

Preparing CSP data for GenAI involves identifying the necessary data, and ensuring it is clean,

well-labeled, and enriched with relevant metadata. TMForum's aLDM, a certified integrated data model specifically designed to refine data management processes, can be utilized by CSPs to optimize their data management practices.

This model facilitates the development of personalized GenAI solutions through its meticulous design and precision. With comprehensive pre-mapping to both Amdocs platforms and common non-Amdocs systems, aLDM presents an efficient solution for CSPs aiming to enhance their data management practices. It efficiently translates BSS/OSS data into a unified model, significantly shortening the Time-to-Market for deploying GenAI solutions across

both current and future use cases. By improving data reliability and quality, aLDM enables the accurate calculation of KPIs and supports the creation of detailed customer profiles. This advanced level of data management is crucial for developing personalized GenAI solutions that can adapt dynamically to individual customer needs, thereby leading to more effective and responsive customer interactions.

In the absence of any viable model capable of answering the specialized needs of the telco domain, industry veteran Amdocs created amAlz, a telco-grade GenAI solution, designed to drive innovation, automate processes and optimize decision-making. By integrating telecom-oriented data models with authoritative taxonomies, the solution ensures delivery of accurate and relevant outcomes for a broad spectrum of CSP business requirements.

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The approach emphasizes seamless integration with CSP network systems, Business Support Systems (BSS), and Operational Support Systems (OSS), thus minimizing disruption and ensuring smooth deployment. Integrating GenAI with core telecom systems requires a thorough understanding of the data flow—specifically, what data enters and exits the GenAI models—to ensure that all interactions with BSS/OSS systems are both transparent and effective. This integration enables CSPs to achieve enhanced operational efficiencies and allows customers



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to benefit from higher-quality interactions. Moreover, by incorporating GenAI into business and operational workflows, CSPs can automate tasks, streamline processes, and provide customized solutions that weren’t possible without these integrations.

Maximizing telco efficiency through GenAI

Leveraging GenAI to enhance operational efficiencies is yet another important strategic goal, demanding the ability to leverage deep industry insights and expertise, particularly when tailoring interactions to the unique needs of our industry. This too is a central value proposition of Amdocs amAlz. The key lies in creating precise prompts and selecting the most fitting LLMs, a process reliant on familiarity with the intricate details of the telecom domain. Central to this is having data that is both relevant and contextually rich, enabling AI to produce outputs that are both

insightful and accurate. Providing specific examples within the telecom context further sharpens this focus, guiding the technology to produce outputs that resonate with the sector’s unique requirements.

Practical applications in telco GenAI use cases

The examples below demonstrate how a solution tailored for the telecom sector can effectively empower CSPs to navigate challenges unique to our industry.

Redefining customer billing

enquiries: This use case demonstrates GenAI’s ability to rapidly and accurately answer common customer questions, such as “Why is my latest bill so high?” which would traditionally demand interaction with a human operator. This is achieved by analyzing billing-related terms, aggregating amounts and detecting discrepancies. Amdocs amAlz takes this capability a step further by incorporating Amdocs’ insights into BSS/OSS systems.

Optimizing data flow

management: This use case demonstrates GenAI’s ability to face the data engineer’s crucial challenge of identifying and mitigating revenue leakages, together with the associated risks. But issue recognition is just the beginning. More importantly, it demands the ability to conduct in-depth analyses of the CSP’s operations, from the intricacies of data flow to the complexities of system integrations and infrastructure design. In this context, the application of GenAI is not just about utilizing a tool; it’s about harnessing deep, sector-specific expertise, which encompasses an intricate understanding of telecom business processes and domain knowledge.

Charting the future

The journey towards fully realizing our industry's transformative potential is complex, echoing the need for not just operational efficiencies and data precision but also for strategic investment and integration. To remain ahead of the curve, CSPs must ensure their models are designed to understand the specific contexts into which they are being deployed. This means using well-defined and easily accessible APIs that support GenAI model integration with both operational workflows and the BSS/OSS. Moreover, it demands significant investment in developing data preparation and governance functions to ensure outputs are both accurate and ethically sound. This is where strategic partnerships like amdocs become key. Identifying a knowledgeable partner who brings comprehensive industry insights, a deep understanding of data, and a commitment to operational excellence, is the natural first step towards fully realizing the GenAI opportunity.

About Amdocs



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