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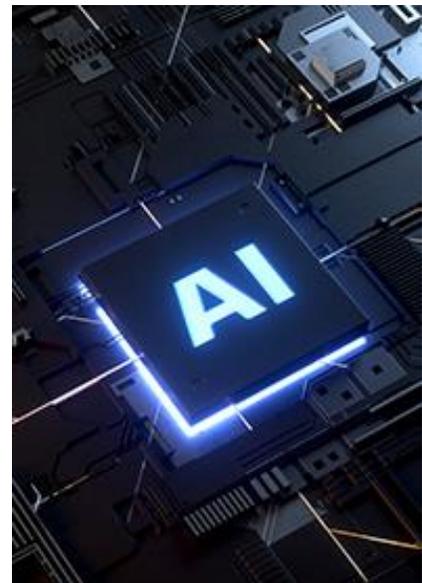
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# Gen AI and Automation's Impact on Telco Transformation

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Over the past few years, Communications Service Providers (CSPs) have battled increased competition, macro challenges, and rising operational costs. At the same time, disconnected and disparate legacy systems with complex processes have negatively impacted customer satisfaction and burdened day-to-day operations for CSPs, making adapting to challenges much more difficult.

As CSPs face competition and the many other challenges set before them, they need solutions that help them achieve their goals and increase customer loyalty, while at the same time mitigating risk. They're leaning into automation, AI, and generative AI to streamline the end-to-end service experience, starting with planning and building networks, all the way through to selling services, and providing ongoing customer support.



## The AI Opportunity

2024 is set to be a breakout year for CSPs on their generative AI journey. Research from [NVIDIA](#) found that telcos are rapidly adopting AI and generative AI for a variety of business needs. In fact, “31 percent of respondents said they invested in at least six AI use cases in 2023, while 40 percent are planning to scale to six or more use cases in 2024.”

CSPs are ready to implement generative AI and implement fast, and that's with good reason. [McKinsey](#) found that CSPs around the world have started implementing generative AI and are

already seeing double-digit percentage impact. CSPs at the forefront of this movement will regain growth and capture significant market share while seeing massive productivity gains, according to the report.

Let's see how this comes to life across the end-to-end service lifecycle, using generative AI for simplified experiences, improved productivity, and supercharged growth.

### **Stage 1: Planning, building, and monetizing networks**

Planning, building, and monetizing networks remains a top priority for CSPs today, and the starting point for any service. Fragmented networks, rising customer expectations and demand for new services create an immediate need for AI and automation. Automation is already helping CSPs better understand their network inventory, including where to innovate and expand to deliver the service that customers expect.

With AI and generative AI, CSPs can improve the network planning and design process, accelerating time-to-market while mitigating the risk of human error. Imagine how much faster and efficiently a new network could be created and designed if a network engineer could ask generative AI to design it based on capacity demands and existing infrastructure. The agent could tell a generative AI-powered chatbot, in natural language, the topology, throughput, and bandwidth requirements needed. The chatbot could then recommend the optimal network design, with human oversight at every step of the way.

### **Stage 2: Sales and order fulfillment**

Once the network is built, CSPs need to be able to launch products and fulfill orders fast. But fulfilling a telco order is a complex and manual process requiring multiple steps, systems, and teams.

Imagine how much faster and efficiently a product could be launched if an order fulfillment agent could ask a generative AI tool: "What tasks do I need to create for this order?"

Generative AI could build a roadmap of the tasks needed to fulfill the order that recommends what to do when. Of course, an agent is in the loop the entire time with the ability to edit and adjust the plan, but it's a lot easier and faster to start from a draft order orchestration task list than building one from scratch.

Simply put, generative AI can streamline order orchestration and eliminate manual work to accelerate time to market. Delivering orders fast and accurately increases customer satisfaction.

### **Stage 3: Customer, partner, and agent experiences**

After a product or service is sold, maintaining the customer relationship is absolutely critical. Across every industry, customer expectations for fast, easy service are rising. Meeting these expectations can determine whether customers leave or new ones are gained. According to [new research](#), 69 percent of customers will switch brands because of a poor customer service experience while 84 percent of customers are likely to recommend a brand based on great customer service. However, customer service agents today spend most of their time on mundane,

manual tasks, making it difficult to provide the level of service that customers demand. Generative AI-powered chatbots are revolutionizing customer service by quickly resolving issues through self-service. They deliver direct, conversational responses so customers get the answers they need, fast.

Imagine how much faster and easier basic issues could be resolved if customers could ask a generative AI-powered chatbot: “What steps should I take to resolve my internet issue?” The response returned is a summarization of the most relevant information pointing them to the optimal solution, instead of a response that requires the customer to sift through endless articles and guess which one would be most helpful.

If the chatbot can't solve a customer's issue, and they're escalated to a live agent, that agent needs to understand the customer's question and previous interactions. When the customer's case is complex, which is often the case when dealing with complex digital services, multiple conversations often occur that all contain important information for an agent trying to solve the issue. This is where generative AI can help an agent better serve the customer.

Generative AI can summarize conversational exchanges so agents understand the context and can quickly propose resolutions. What's more, it can also recommend the next best action for the agent to take in resolve the customer's issue.

After a case is complete, generative AI can summarize the case, a necessary yet time consuming and mundane task. Imagine an agent taking 10 minutes to manually summarize a case. That doesn't sound like a lot of time but consider the fact that some agents manage more than 20 cases in a given day. That's over 3 hours of time saved to work on that many more cases and other critical projects.

#### **Stage 4: Service and network assurance**

Last but certainly not least, CSPs need to be prepared to resolve critical issues fast. But when a network event happens, teams are inundated with technical details on what's not working, why it isn't working, and the steps required to solve the issue. Today, someone needs to read, comprehend, and summarize what broke, why it broke, and how to fix it. Generative AI can be used to summarize the incident, leading to faster issue resolution and improved customer experiences.

To start, GenAI can distill complex incident data into simple, actionable summaries for fast and efficient incident resolution. Take a fiber cut, for example. When a fiber cut occurs, incident management teams are hit with complex technical data generated by monitoring tools and systems. The vast amount of technical data from logs, alerts, and event details can quickly become unmanageable.

Imagine how much faster an agent could resolve the fiber cut incident if they could ask generative AI: “How do I summarize this incident and what is the next best action to take?”

Generative AI can provide teams with a clear account of the event, including notes with essential context, like the exact location of a fiber cut. As customers are notified about the case, generative

AI ensures the message is easy to understand without any technical jargon, concise, and contains the information most relevant to each impacted customer.

## Getting Started with Generative AI

In the era of generative AI, nothing is more important than responsible implementation. That includes ensuring data is accurate, consistent, relevant, and secure, and that the right governance is in place.

It's also critical to prepare your workforce. Employees need to understand how generative AI will impact, augment, and improve their work. If employees don't trust the tools, they won't use them, and organizations will never realize their potential.

Roles will evolve and new skills will be required to maximize generative AI implementation. As we innovate, we must also educate. CSPs will need to train and up-skill their employees to ensure they have the necessary competencies and knowledge to effectively use AI.

Just as important is creating a culture that thrives on innovation and collaboration. Employee buy-in is table stakes for making the most of generative AI.

It's important to remember that generative AI implementation can't happen overnight. Start small. Pick an area that's ripe for disruption, something that's manual or time intensive, and build. Test and learn what works and expand from there.