



REPORT

Telcos' quest for customer-centricity:

Fixing data gaps to deliver what users truly need

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Over the past decade, telcos have undergone their most ambitious transformation yet, evolving into technology-driven enterprises. With the rise of 5G and generative AI, as well as deep partnerships with companies like Google and Microsoft, telcos are crafting value beyond the network. From digital twins, genAI-as-service offerings to a surge in consumer services surrounding Virtual Reality (VR), the possibilities for innovative data products and services are exploding.

The successful transformation from 'telco to tech-co' pushes customer-centricity and customer satisfaction to the top of the corporate agenda. ⁱ Both areas pose long-standing challenges for the industry with Internet Service Providers (ISPs) languishing at the bottom of the American Customer Satisfaction Index (ACSI®). ⁱⁱ Saddled with legacy technologies, outdated business models and a complex set of product offerings, the industry must move quickly to capitalize on the opportunities now opening up.

For telcos, success hinges on their ability to understand, predict, and exceed customer needs. The critical weapon in their arsenal for doing this is customer data. Virtusa Research recently surveyed over 300 US businesses, including 61 telco firms, and found that nearly three-quarters of telco respondents underutilize their most critical asset—customer data. ⁱⁱⁱ Those that do generate insights, identify hidden pain points along the customer journey, and address them with real-time solutions. ^{iv} Our research indicates that telco providers that double down on customer data can drive innovative data products as a result. There is substantial room for improvement, from using generative AI (genAI) to augment customer-facing processes to establishing the right mechanisms and policies to improve employee data literacy and ownership. These steps are essential not just for operational efficiency, but also for unlocking the full value of customer data and driving sustained innovation.

Data quality and usability hamper customer-centricity

Data quality and usability are key to driving customer-centricity through better decision making and establishing customer trust. And although telcos are good at collecting different types of customer data, they struggle on both the fronts (see Figure 01).

Extensive data collection hindered by poor data quality

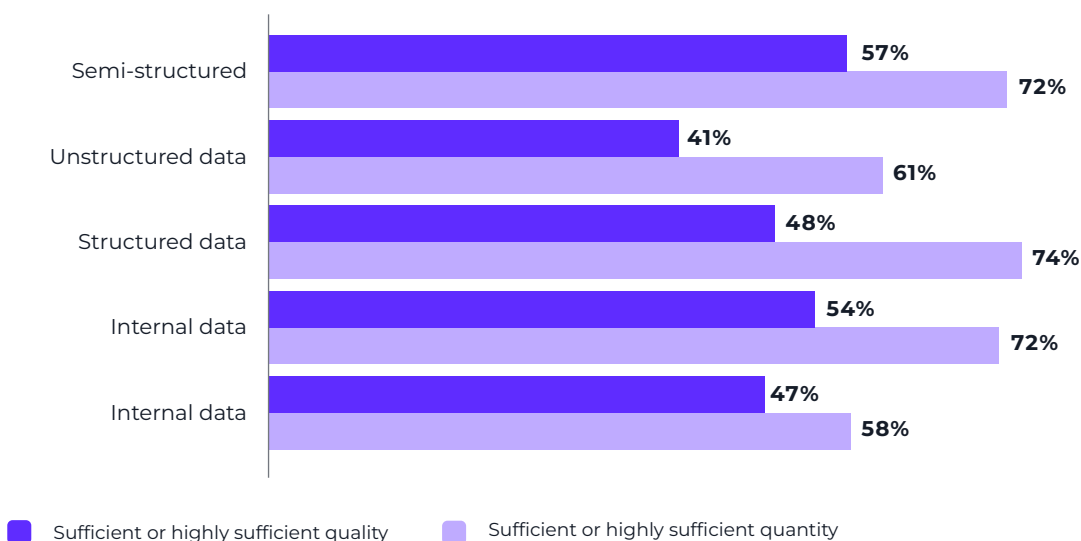


Figure 01

Our survey results highlight the scale of the challenge. Telcos manage massive volumes of data—across different formats and varying levels of readiness for analysis. Operational Support Systems (OSS) and Business Support Systems (BSS) contain a mix of structured and unstructured data. Network data is mostly structured, while operations data sits somewhere in between. Together, these data types span customer segments, product lines, and service areas, but are often scattered across disconnected systems.

Telcos can use metadata to improve the quality and usefulness of such data so they can spot patterns in customer behavior. Unfortunately, many fall short in this regard. While 72% of our survey respondents said they use metadata, only 55% do so extensively. In contrast,

leading telcos—those ahead in data maturity—use metadata extensively, with usage rates ranging from 69% to 90% (see Figure 02). This gap highlights a missed opportunity: without deeper metadata usage, telcos risk falling behind in delivering personalized, data-driven experiences.

Creating seamless flows of data, and more importantly, actionable insights, from multiple sources requires strong data management practices to ensure accuracy and reliability. For example, combining data from customer-facing departments like billing and customer service with network operations data can offer a 360-degree view of the customer. This kind of integration enables telcos to proactively resolve service issues and deliver more responsive personalized services.

Unused metadata leaves value on the table

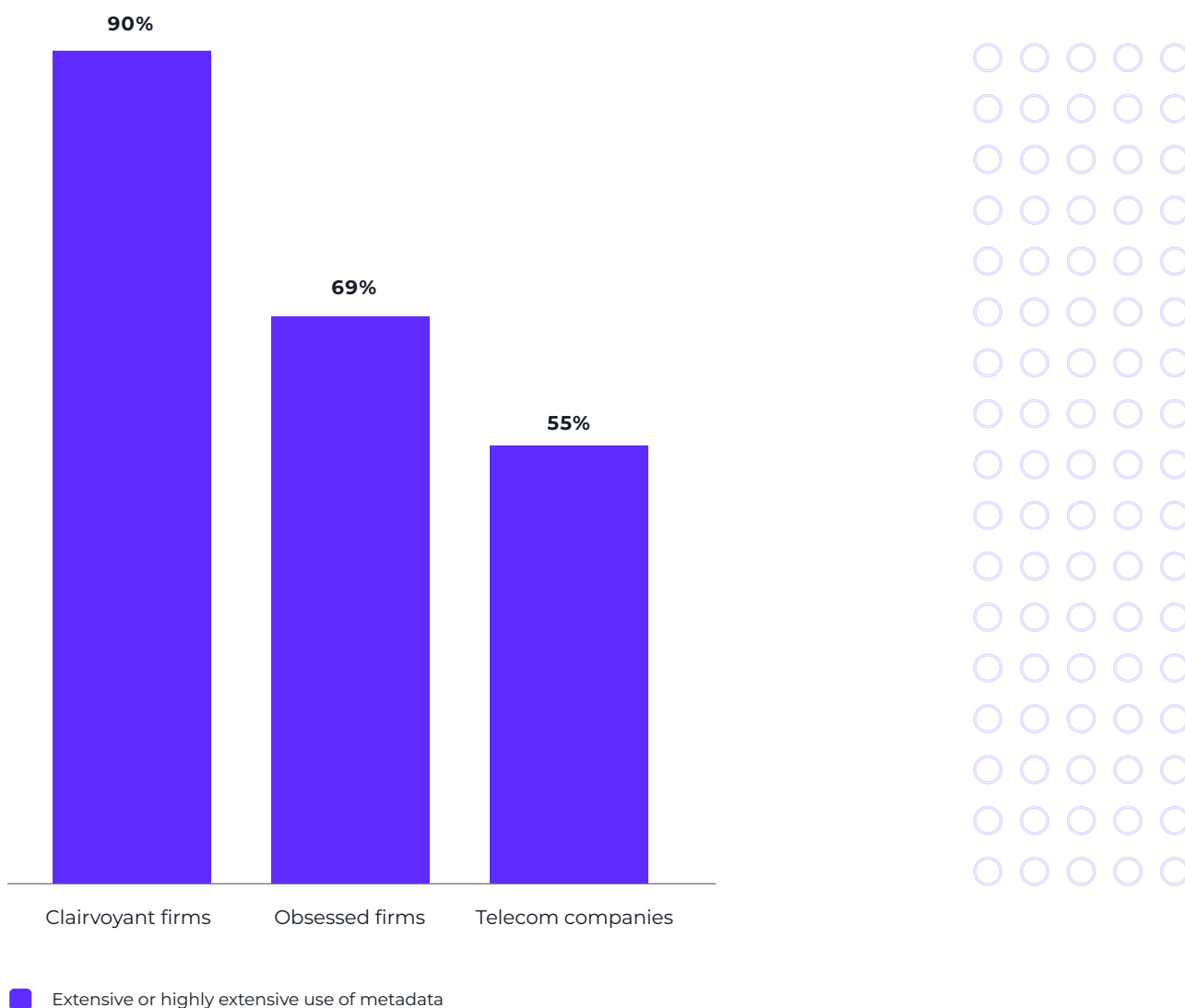


Figure 02

GenAI investments centered around customer-facing processes

Virtusa research reveals that genAI adoption in telcos is accelerating fastest in customer service. More than half of respondents (51%) identified contact center transformation as their top genAI use case over the next few years, up from 37% today. This early focus reflects a practical reality: contact centers remain the front line of customer experience and a clear opportunity to apply genAI for measurable impact.

Customer satisfaction with call centers—especially for fiber internet and wireless phone services—consistently ranks as the weakest link in the overall experience. Secondary research by Virtusa shows how genAI and LLM models are being deployed to address retention challenges. For example, Verizon uses a genAI-powered tool to assist call center employees and an AI-driven recommendation engine to deliver personalized offers to individual customers. Despite the promise, realizing genAI's full potential remains a challenge for telcos. We identified four major barriers faced by telcos in maximizing ROI. Nearly 60% of telecom leaders cite

integration with legacy systems as the biggest barrier, followed by data privacy and regulatory concerns (45%) and poor data quality or availability (43%). Worryingly, one in three respondents reported the absence of a clear AI strategy from leadership. This underscores a critical fact that without strong direction from the top, genAI risks remaining a set of disconnected pilots rather than an enterprise-wide capability.

Interestingly, for those that are adopting it with clear intent, genAI is proving to be a useful tool in tackling the challenges that legacy systems create. AT&T, for instance, has deployed the [technology to retire](#) its copper network by 2029, and offers fiber broadband in its place with a catchy 'plug it in everywhere' strategy. The company currently spends [\\$6 billion](#) per year to maintain this network. Instead of sending technicians to assess each site, a cumbersome and time-intensive task, the company uses public domain visual data to assess physical conditions and determine upgrade feasibility.^{vi}

Organizing strategic success through a global data office

Global data offices (GDO) have emerged as a strategic imperative for telco firms. These mechanisms are critical to strengthening the data foundations by ensuring data quality, governance, and staying on top of advancements in new ways of working.

In our study, 61% of telco respondents said their firms have instituted a global data office—highest among all industries surveyed and on par with customer-obsessed firms (55%) and customer-clairvoyant firms (65%).

Importantly, these offices deliver tangible value for telcos. They go beyond table stakes like creating and enforcing policies for using customer data by leveraging data to foster innovation for functional and product

line managers. For instance, 78% said their GDO was somewhat or highly effective in creating data products tailored to business functions, while 59% said the same about helping business functions utilize new technologies for analyzing customer data (see Figure 03). In fact, we found that telcos are more effective in relying on their GDOs to drive customer-centricity than other industries.

One reason for this is the average number of employees working in the GDO. Telco firms reported 64 employees working at these offices on average, second only to healthcare (75). We believe a well-staffed team is critical for companies looking to bridge the gap in turning data into insights and competitive advantage.

Global data offices scale data innovation

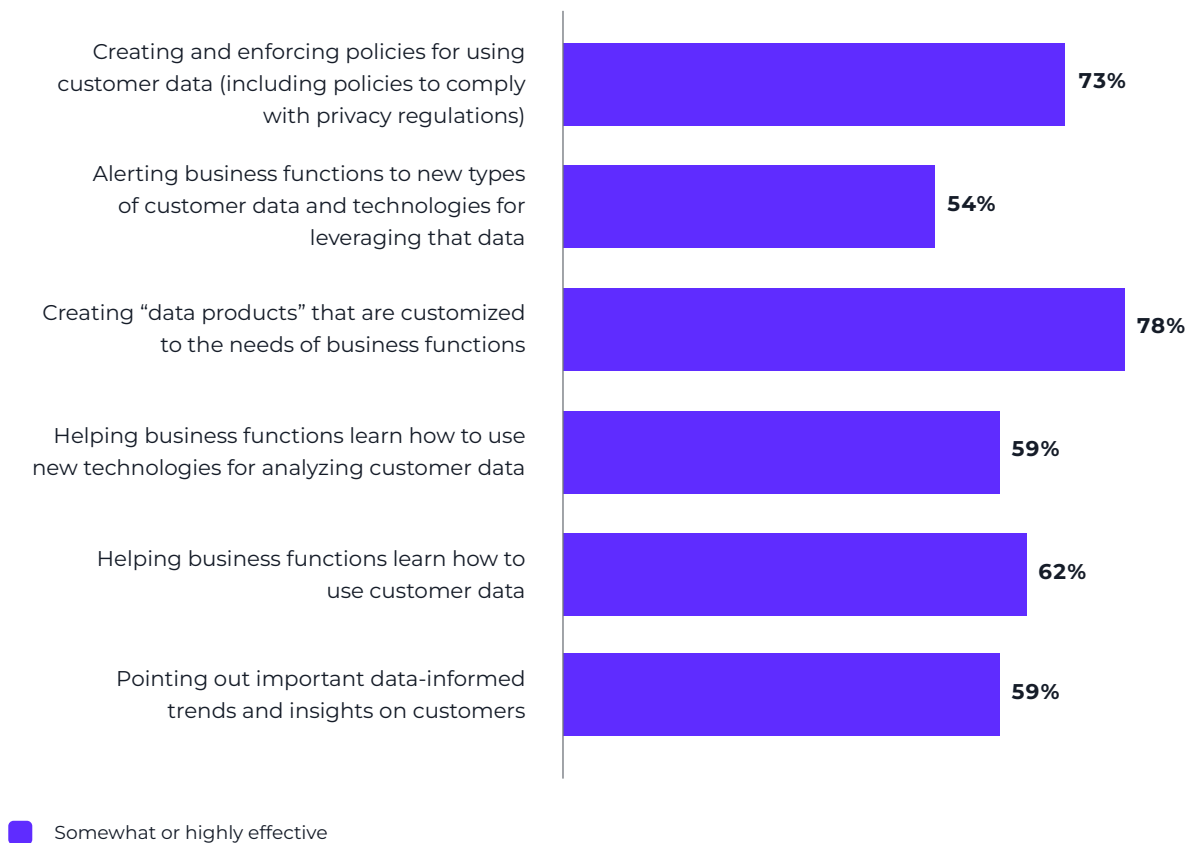
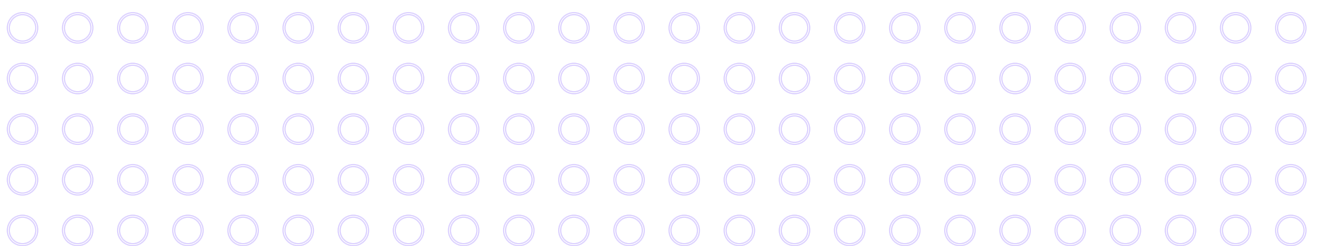


Figure 03

However, two key factors limit the effectiveness of the GDO: lack of a common data strategy to align data efforts across the organization and limited data sharing to generate a steady stream of insights for functional and product managers. Telcos continue to grapple with both challenges. Only 26% of respondents agreed that they have a common data strategy across business functions, and just 34% said marketing, sales, service, and R&D functions share customer information with each other (see our main report for a deep dive into this). Another area where they can improve is building data literacy and ownership among business and functional teams—less than half (46%) of respondents believe their GDO is effective in this area.



Customer-centricity demands a strong data foundation

Customer centricity for telcos means designing every product, process, interaction, and investment around the needs, goals, and experiences of the customer, not as per the convenience of the network. Strengthening data capabilities with a focus on quality and usability, incorporating AI/genAI to address operational challenges/customer experience pain points, and creating a seamless flow of insights enables creating game-changing products and services critical for future success. Virtusa recommends leaders to take the following steps:



Invest in data—it's foundational to future success

Investments in data are critical to addressing the pressing issue of legacy and unlocking innovation. Take, for instance, T-Mobile's choice to [integrate](#) its 5G Advanced Network Solutions (ANS) with Google's Distributed Cloud Edge (GDC Edge), allowing T-Mobile to address latency issue on the edge and [pursue advanced use cases](#) such as computer vision for manufacturing, retail, and logistics



Align disparate data sources for seamless information flow

Newly powerful, personalized customer experiences necessitate a seamless flow of high-quality and usable data and insights to the right teams at the right time. Move away from siloed data systems to cloud-based options, prioritize data standardization and interoperability and deploy AI/genAI rigorously to automate processes. Lean into frameworks such as a Digital Target Operating Model (D-TOM) to find the right mix of solutions fixing holes in data quality and usability



Get crystal clear on AI strategy

One third of respondents reported no clear AI strategy from the top—the risks then proliferate from inconsistent customer experiences to poor collaboration across functional teams and hurting long-term competitive advantage. Leadership teams must demonstrate the potential; set up and lean into a global data to deliver maximum impact ([see our infographic](#) for more on this).

Telcos are shaping the future of connectivity with next-generation customer experiences powered by conversational AI—dismantling manual processes, erasing silos, and building intelligent platforms designed to unlock unprecedented opportunities. At the core of this transformation lies a single truth: mastery of data is the ultimate catalyst for progress.



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ⁱ Virtusa defines customer centricity as a business strategy and cultural mindset that places the customer at the core of every decision, process, and investment. It means understanding customer needs, behaviours, and preferences as firms design products, services and experiences to create long-term value for both customers and stakeholders.

ⁱⁱ See ACSI® Telecommunications, Cell Phone, and Smartwatch Study 2025

ⁱⁱⁱ We categorized companies across industries and within telecommunications as “customer-ignorant”, “customer-indifferent”, “customer-obsessed” and “customer clairvoyant.” (See methodology in our [main report](#).) The average company was considered “customer responsive,” meaning they make adequate but not exceptional use of customer data to improve how the market, sell, service and create new offerings.

^{vi} We worked with a leading telecom operator to clear contact center bottlenecks by implementing a next-gen, AI-powered contact center solution that streamlined workflows, predicted customer intent, and enabled contextual, personalized interactions. This transformation delivered measurable impact: a 40% reduction in FTE costs, 60% improvement in average handling time, and a 30-point boost in agent experience. Customer satisfaction surged, with a 24-point increase in NPS, and the client unlocked 20% more upsell opportunities. By integrating intelligent automation and real-time insights, we helped the client shift from reactive service to proactive engagement—driving efficiency, empathy, and growth.

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Virtusa is a global product and platform engineering services company that makes experiences better with technology. We help organizations grow faster, more profitably, and more sustainably by reimagining enterprises through domain-driven solutions. We combine strategy, design, and engineering, backed by unmatched expertise at the intersection of industry, business, and technology to generate real-world business impact for clients.

Headquartered in Massachusetts with global delivery centers, Virtusa provides a broad range of services, solutions, and assets, including strategy and design, AI advisory and services, digital engineering, data and analytics, digital assurance, cloud and security, and managed services across industries such as financial services, healthcare, communications, media, entertainment, travel, manufacturing, and technology.

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