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Predictions 2025: Telecommunications

Evolving Telecommunication's fundamental value proposition

In a global economy that's increasingly digitized and crowded with new competitors and technologies, telecommunications firms are rethinking their fundamental value proposition.

In a classic sense, these companies have long excelled at building out infrastructure, using advanced technologies such as fiber optics, 5G, and satellite systems to develop network designs that span vast geographic areas. But in today's macroeconomic environment, pressure on telecommunications companies to evolve is increasing. That's in part because another group of market players has gained traction in the infrastructure game. Hyperscalers are now constructing data centers, cloud networks, and global fiber optics networks — and with a focus on scalability, which helps them deliver high-speed, ultra-low-latency services. In this sense, hyperscalers and telecommunication companies now compete to provide the backbone for future digital services and connectivity.

Against this backdrop, telecommunications companies seek to differentiate their services by 'building up' the so-called technology stack and deeply embedding them in enterprises across the globe. Achieving this will be critical for these firms as they look maintain a competitive edge, and it won't be accomplished overnight. In fact, it's a far cry from the traditional role they've played in the market, serving as the highway by which data gets from Point A to Point B. The imperative now is not just to facilitate data movement, but to engage with that data, too. In this sense, traditional telecommunications firms seek to evolve into dynamic digital, technology companies that deliver innovative and data-driven services, leverage artificial intelligence for customer engagement, and support next generation applications like IoT (Internet of Things), IIoT (Industrial Internet of Things), and edge computing. They look to position themselves as enablers of digital ecosystems rather than mere providers of communications services.

The readiness paradox

90% of telecommunications leaders are confident that their IT infrastructure is best-in-class.

64% of CEOs in telecommunications are concerned that their IT tools or processes are outdated or close to end-of-life.

43% of telecommunications leaders report that their IT infrastructure is completely ready to manage future risks, slightly above the overall average of **39%**

2025 outlook

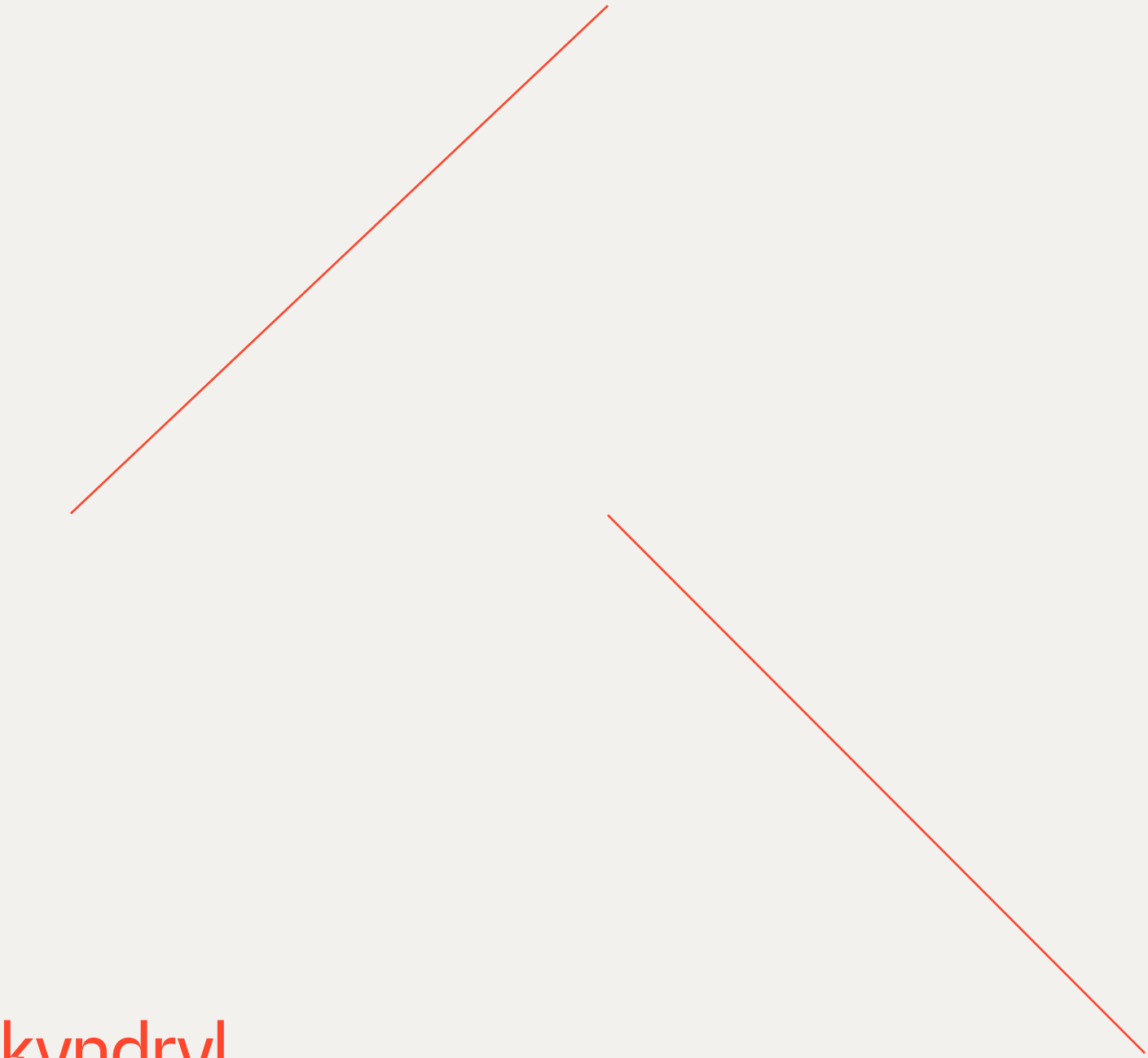
- In the next year, telecommunications companies will deepen partnerships with enterprises already advancing the field of artificial intelligence, including Generative-AI, Large Language Models (LLMs) and some Machine Learning based on graphic processing units (GPUs). It's a match that makes sense, as telecommunications firms bring to the table a deep understanding of the network infrastructure that's critical for integrating advanced technologies into existing systems. Consider the role of GPUs in enhancing data processing at the edge. By integrating GPUs, telecommunications firms stand to offer faster, more reliable services, including ultra-low latency streaming and real-time analytics.
- In 2025, telecommunications enterprises will lean into the power of 5G to deepen their push into micro-industry verticals — highly-specialized niches within industries that focus on very specific segments or sets of needs. Consider a fast-food chain that wants to experiment with robotics to operate elements of its back kitchen. To make that work, they'll need sensors to build out and automate their design. Micro vertical stacks helps bring AI to the edge. This can be extended to a retail store, a bank branch, a hospital campus, and much more. Investments in 5G have helped build out edge computing, but many enterprises have not fully realized its usefulness. For telecommunications companies, this is seen as a business opportunity to explore.
- In the coming year, telecommunications companies will look to enhance their ability to analyze and understand data to drive greater efficiency and cost-savings for their customers. Consider an autonomous vehicle company that collects and creates vast amounts of datapoints as their vehicles move on the road. Some datapoints are processed on the spot. Other types of data are sent back to the cloud or the data center for processing. Not all data is worth keeping, though. If the vehicle brakes, for instance, that data must be processed on the spot, but it does not need to go further down the line to a data center. Being able to better distinguish how and where data is processed and stored is an opportunity to deepen the work of telecommunications in our increasingly digitized world economy.
- In their quest to deepen their expertise and reputations as digital technology companies, telecommunication firms will work to make inroads in the area of quantum computing. Once quantum computers become operational, they will be able to break current encryption protocols and methods in matter of minutes. New sets of standards and techniques are being developed to create quantum encryption to safeguard private and sensitive corporate information. One of the ways to create the next generation of quantum-based encryption is to use fiber optics networks. Fiber optics networks can help generate keys for quantum-based encryption and also help safeguard the keys. Telecommunication companies will play a pivotal role in helping quantum computers become more mainstream and prominent.

Market activity

Kyndryl is working to modernize the technology environment of a leading telecommunications company in Argentina, including the management of its hybrid cloud infrastructure and the integration of automation to add efficiency, improving services and application experience of its customers.[1]

> **"Data is data — it means nothing if you don't have the tools and the skills for ingesting that data to marshal insights, drive efficiency, and improve operations.**
>
> — *Gretchen Tinnerman, Vice President and Leader of the Kyndryl U.S. Telecommunications, Media & Entertainment, and Technology (TMT) market*

[1] *Telefónica de Argentina Selects Kyndryl to Automate and Modernize its Technology Infrastructure*, 2023 September, Kyndryl News



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