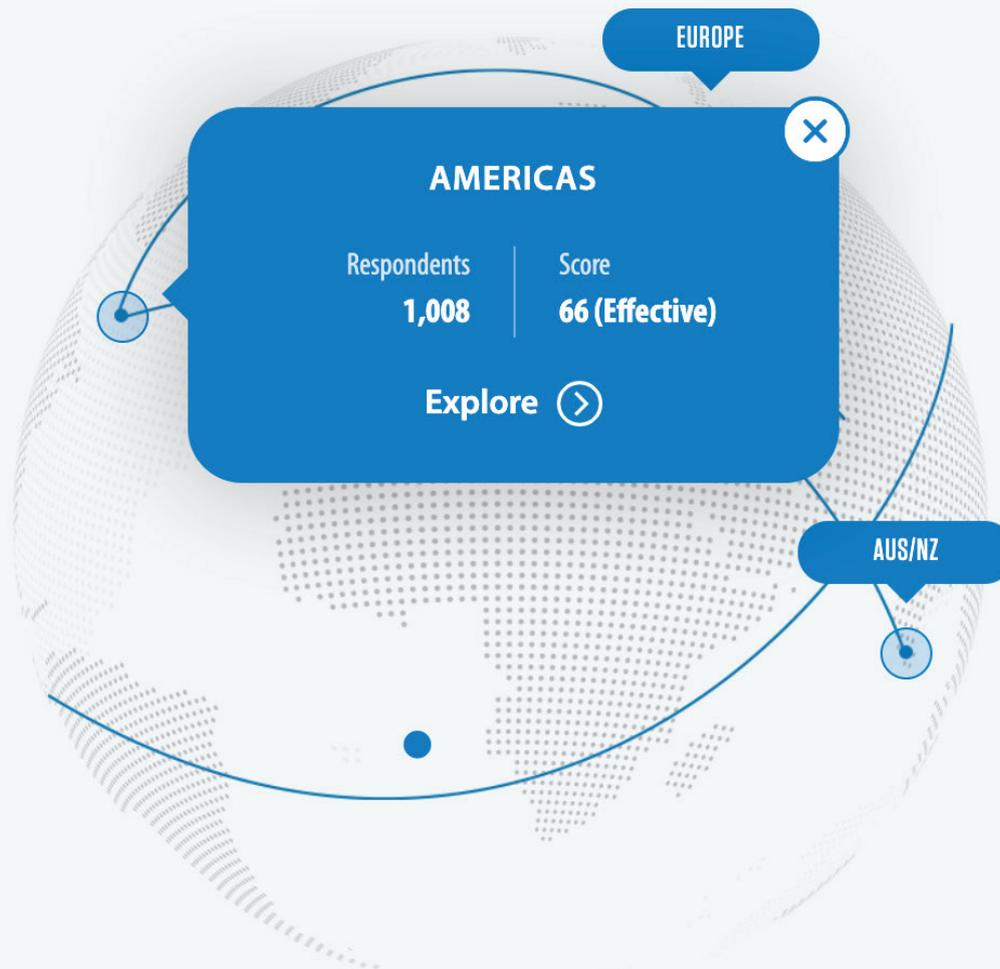


TELECOM

TELECOM LEVERAGES
CLOUD TO DELIVER SCALE
AND NEW CAPABILITIES



\$414 Billion in Profits can be Gained Using Cloud for Business Growth: Infosys Research

[EXPERIENCE CLOUD RADAR](#)

Introduction

Countries worldwide imposed lockdowns requiring people to spend more time at home to combat the quick spread of COVID-19. These restrictions forced everyone to rely on the internet and mobile devices to stay connected for both work and personal needs. This surge in digital technology usage has put a tremendous strain on the telecommunications sector as the demand for network infrastructure, connectivity and automating customer-facing processes continues to grow. If this industry cannot meet expectations, the results could impact service, productivity and overall business operations.

In the latest Cloud Radar study by Infosys Knowledge Institute, the telecom industry was put under the microscope to understand how they are using the cloud to navigate their business through these disruptions to future growth. While this industry represents a small subset in the study, Infosys findings reveal they are capitalizing on cloud technology to deploy artificial intelligence (AI) and automation, predictive maintenance capabilities and ramp up 5G usage.

“Connecting people and data regardless of distances is fundamental to what telecom companies do. It’s only natural that telecom companies would see the promise of cloud and move quickly to adopt it.”

Anurag Vardhan Sinha

*Senior Vice President – Communications,
Media & Entertainment, Infosys*

Telecom companies have focused their cloud efforts on deploying AI and automation, developing predictive maintenance capabilities and expanding 5G offerings.

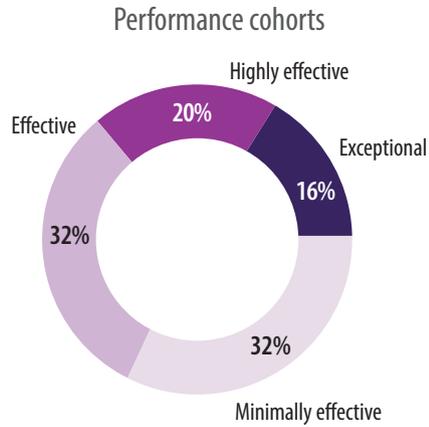


Growth in cloud adoption

The surge in cloud adoption is transforming businesses into more agile, flexible and scalable enterprises that can respond to rapidly changing market trends and unexpected disruptions. Infosys findings show that, since 2018, cloud adoption across industries has doubled every two years and is expected to do the same in 2022 when 42% of all IT systems shift to the cloud.

The telecom industry is slightly advanced in its cloud adoption efforts. In 2020, this sector moved 47% of their business functions to the cloud, followed by 45% of their IT systems. By 2022, they plan to migrate nearly 58% of all systems and functions to the cloud. If they realize these numbers, telecom firms will be the industry leaders in cloud progression.

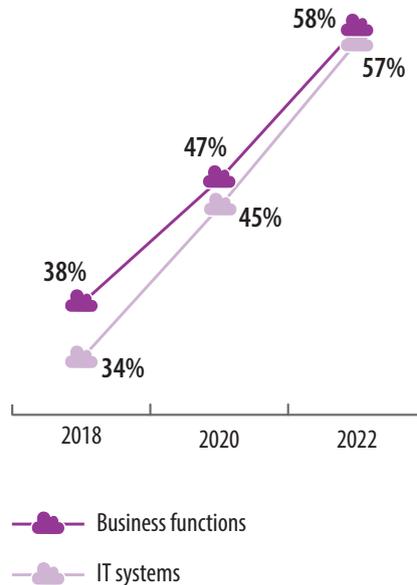
The telecom industry considers itself very developed in its ability to unlock AI and data benefits. In fact, they rated the highest (36%) among the industries featured in the Infosys survey.



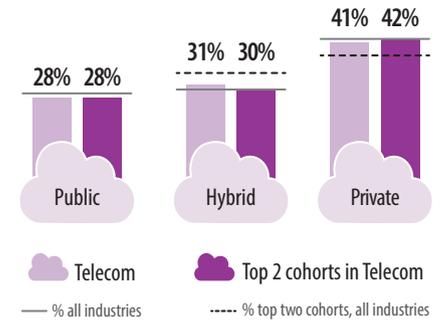
Being in a customer-oriented industry, telecom companies are turning to cloud to use AI to process and analyze huge amounts of data to derive actionable customer insights, monitor consumption patterns and provide better customer experiences. Furthermore, they are using robotic process automation to streamline back office operations like billing, data entry, workforce management and order fulfillment so staff can focus more on higher value-added work.¹

To identify those industries whose cloud strategies impact their business performance, Infosys developed a Cloud Radar Index around four parameters: speed, capability, security and scale. Based on respondents' input, industry clusters were ranked by their performance effectiveness. The telecom industry fared well in this comparison, with Infosys ranking 16% as exceptional cloud performers and 20% as highly effective. With their abilities to develop speed and capabilities, telecom enterprises are poised to make a successful digital migration to the cloud.

Progress to cloud



Cloud type



Speed and capability benefits manifest when an enterprise surpasses at least 60% hybrid cloud adoption. In the case of this industry, they ranked second highest out of the six industry clusters, with 18% of respondents having 60% or more of their IT systems in the cloud. That said, some 44% of telecom companies predict they will reach that 60% threshold by 2022. While there is still much more work to be done, their willingness to use new technologies to build operational effectiveness and find new revenue sources will accelerate their path to greater cloud adoption.

Shift from defensive to offensive priorities

The telecom sector has typically had contingency plans for natural disasters, cyber incidents and power outages. Unfortunately, like many others, these enterprises could not predict or plan for the impact the pandemic would have on their business and the world. In response, they shifted their efforts to ensure customer needs were met, and that their network infrastructure could handle the added product usage. Now that they have these priorities under control, they are working toward more offensive cloud strategies that focus on their digital transformation and overall agility.

As businesses shift their cloud adoption goals over time, the result is a bow tie model that plots a downward shift in defensive strategies and a climb in offensive priorities. This model shows when an enterprise's cloud deployment, scalability and digital capabilities improve, so does its overall profitability.

For the most part, the telecom sector's priorities follow the same path as the overall industry model. However, this high-performing industry is on an advanced course to quicker cloud deployments to enable future growth opportunities.

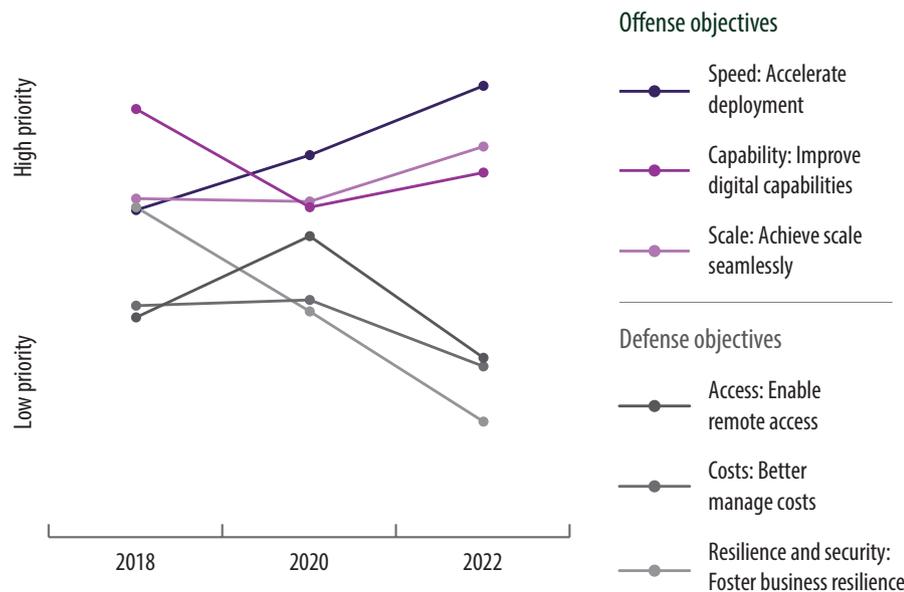
The telecommunications sector kept its cloud goals on offense more than other industries through the disruptions of 2020.

“Telecom companies are striving to transition from traditional communication service providers to the backbone of digital. Migrating network assets to the cloud creates a disaggregated software defined network, creating resilience for uninterrupted telecom services.”

Nitesh Bansal

Senior Vice President and Global Head – Engineering Services, Infosys

Changes in goals





Emerging use cases for cloud

This industry has compelling reasons for cloud use. Topping its list of use cases is the deployment of AI to facilitate demand forecasting and load balancing. Using machine learning, telecom firms are able to optimize mobile tower operations better, launch virtual agents to handle massive volumes of customer requests and detect fraudulent activity. These actions help increase customer satisfaction significantly.

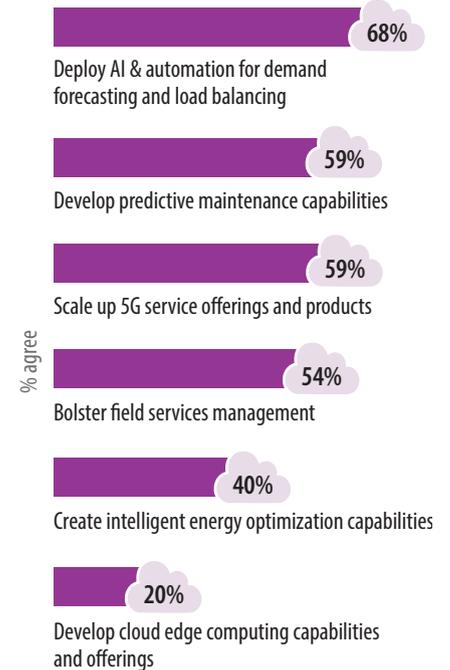
Telecom firms also rely on cloud technology to develop predictive maintenance capabilities and further enhance customer satisfaction. Enabled by AI, predictive maintenance helps keep a close watch on equipment and proactively identify and fix issues, preventing service disruption.

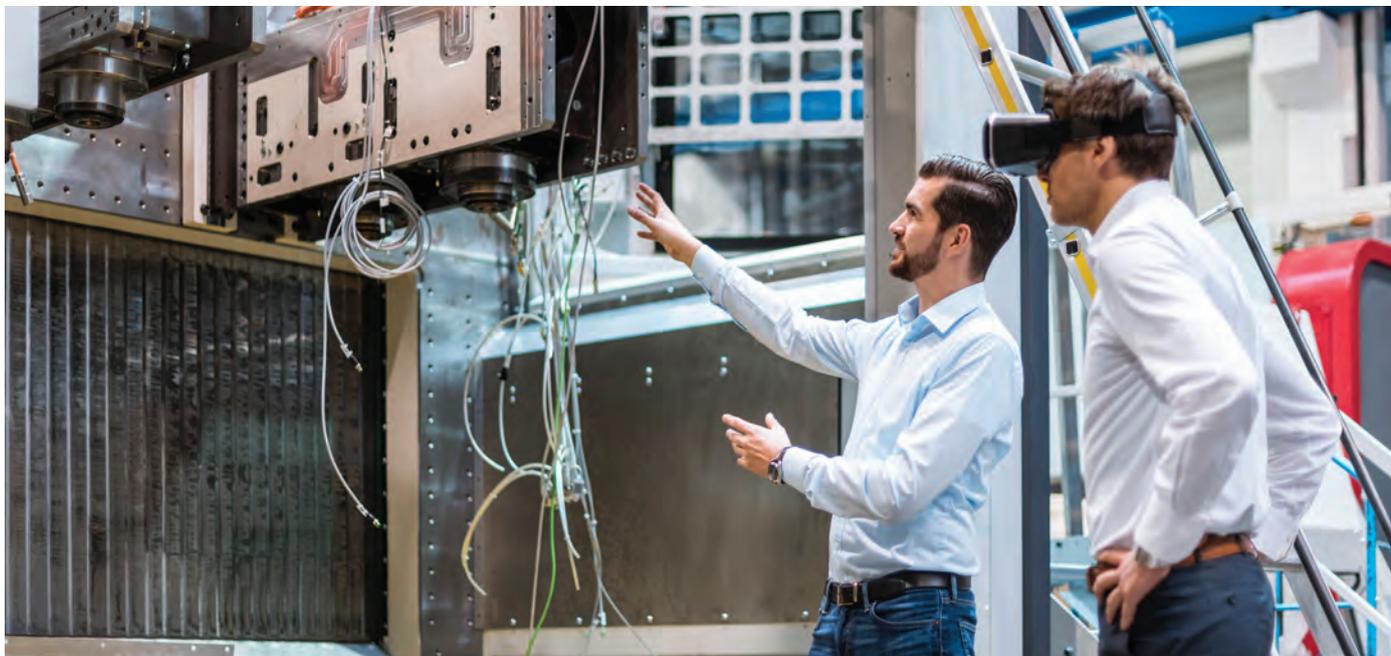
“Advances in automation and AI can combine with pervasive cloud adoption in order to anticipate customer needs, answer concerns and deliver delight more rapidly and in many more creative ways.”

Anurag Vardhan Sinha

Senior Vice President – Communications
Media and Entertainment, Infosys

Top ranked use cases





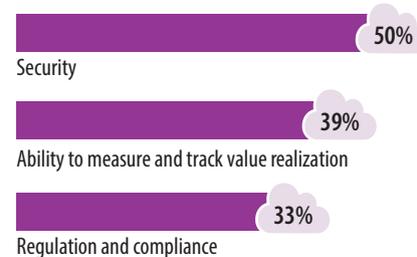
Industry concerns about cloud

As this customer-oriented sector matures its cloud implementations, it proceeds with caution due to concerns they have with cloud systems. Enterprises are significantly more concerned about security (50%) than any other issue. The telecom industry attracts some of the most intricate and sophisticated cyberattacks due to the immense amount of sensitive data they store for customers. In 2019, nearly 43% of telecom companies suffered from DNS-based malware attacks.² A significant portion of breaches occur due to lax internal processes leading to weak passwords and easy access to data.

Respondents rank the ability to measure and track value realization as another serious concern (39%). The complexities involved in choosing and implementing the right cloud strategy and the fluidity of cloud environments in an already hyper-intensive business environment can be challenging for enterprise networks.

Regulatory compliance is the third biggest concern for telecom firms. As 5G technology gains traction, regulatory authorities will create guardrails and policies for telecom companies around deployment and usage to ensure consumer protection and data privacy.

Top 3 concerns



Conclusion

The telecom industry, a high performer in digital capabilities, deployment speed and scaling abilities, is on a successful path to full cloud migration. Cloud computing plays a key role in enabling emerging telecom technologies like network function virtualization, mobile edge computing and 5G networks.

As firms continue to focus on offensive cloud priorities, their affinity to integrate AI and 5G offerings into their digital roadmap will enable them to create new customer experiences and efficiently manage business needs. In addition, they will use cloud solutions to bolster predictive maintenance efforts to create a more dynamic and effective enterprise.

The telecom industry has achieved advanced levels of cloud adoption, and generally strong performance in the cloud.

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2. Cybersecurity in telecoms - now needed more than ever, Yehia El Amine, insidetelecom.com, October 9, 2020

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