



ADOPTING A **MICROSECOND MINDSET** IN TELECOMMUNICATIONS TO MANAGE INCREASING DATA VOLUMES



Introduction

Data drives modern life; supported by a telecommunications sector that strives to ensure the world remains connected.

But in a world of 5G and IoT, where billions of devices are creating zillions of bytes of data every second of every day, telco operators are struggling with the challenge of maintaining quality of service while managing ever increasing data volumes, running across complex networks.



However, there are challenges to be overcome in regards to having the right tools, skills and mindset to take full advantage of the investments they make.

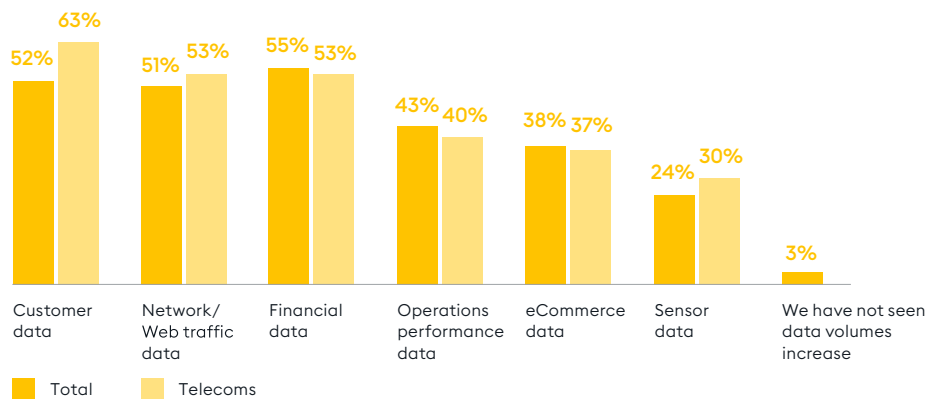
The data landscape

Our research finds that compared with the other industry sectors covered in the research, firms in the telecommunications sector have experienced some of the greatest increases in data volumes. Across 2020 they over indexed against the study average for sensor data (30% of telcos have seen an increase against 24% overall), customer data (63%/52%) and network or web traffic (53%/51%).

This is almost certainly due to the worldwide shift to remote working due to the global pandemic at the start of 2020 combined with the ever-increasing adoption of technologies such as IoT and edge computing.

When looking at how firms responded to the pandemic as regards technology investments, 70% of the telcos surveyed reported either a significant or moderate increase in investment in data analytics. This is the highest aggregate total across the entire sample except for firms in the manufacturing space.

Data volume increase in the following areas due to remote working & greatest automation of business processes



Telco is clearly a sector which understands that the speed at which data can be created and analyzed is at least – if not more – important than simply focusing on how much is being created.

Telco in the fast lane

When asked about how data is created and used in the organization, speed was a priority for Telcos. How quickly data is produced was cited as the main requirement followed by the quality of the analysis being done on the data.

This commitment to performance and analysis pulls through when looking at how different industry sectors define real-time in the context of data analysis. Telcos are the most likely of any industry to identify real-time as being between a millisecond and a second putting them firmly in the fast lane.

In short, the findings strongly suggest a sector which understands that the speed at which data can be created and analyzed is at least – if not more – important than simply focusing on how much is being created. Perhaps not surprising when you consider the time-critical nature of much of the data created by technologies such as IoT, autonomous vehicles, even gaming and entertainment where latency has to be kept to milliseconds.

Mind the skills gap

While the research shows that telcos map closely – or exceed - the cross-sector average for commitment to increase investment across a range of technologies such data analytics solutions, cloud computing, and in AI and machine intelligence, there are notes of caution in the figures.

Almost half (46%) of the telcos surveyed said that they need access to better technology to use their data for smarter decision making, while 65% said they're lacking the data skills.



And there are potential gaps in the telco technology armoury that could let competitors in. For example, for AI and machine learning solutions, almost one in ten telcos surveyed reported not having that technology in their business, surprising when you consider how these transformative technologies are already being applied to optimize networks by intelligently and automatically managing traffic.

Barriers holding back smarter decision making

Need access to better technology

Yes **46%**

No **54%**

Lack the data skills

Yes **65%**

No **35%**

Conclusion

In many ways and distinct to all the other sectors featured in the report, Telcos are the shoulders on which our world is being carried. And as our findings show, the growth in the volumes, speed and type of data that needs to be carried, processed and analyzed is considerable. This is putting unprecedented demands on networks meaning that the Telcos themselves must continue to adopt technologies and processes to keep the world connected.

What's also clear from the findings is that faster, smarter analysis of data is seen as being a key means of both delivering quality of service and staving off competitive pressures, but a lack of access to the right technologies and skills must be addressed to ensure investment expectations are met.

Discover how we are helping organizations in the telecommunications sector achieve true business intelligence

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