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# The Increasing Need for Business Ready and Accessible Data

## Introduction

The trend of being a data-driven organization keeps gaining ground – and telcos must get a grasp of what projects will generate the most financial value while supporting corporate goals. It's all about fast execution, which is triggered by automation in virtual networks.
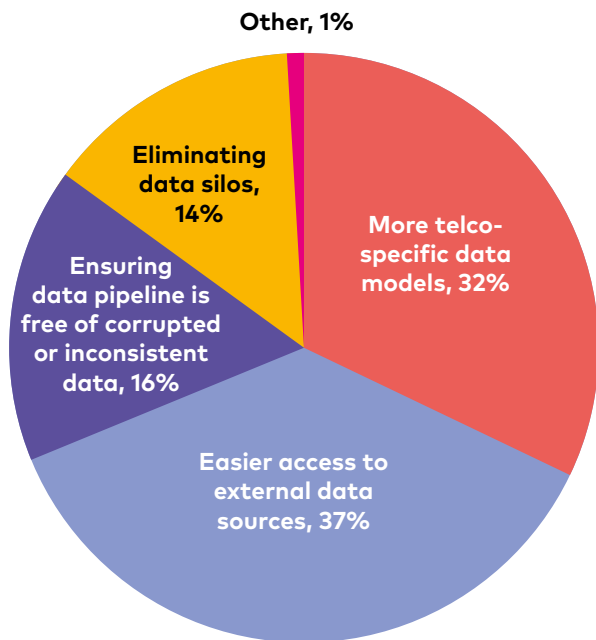
In a recent survey conducted by Omdia, respondents stated that improving access to telco-specific data models drives their use of AI and machine learning (ML). Respondents who consider using AI for realizing their long-term business objectives, need good training data for complex models.

# AI/ML tools for pressing use cases

Omdia asked respondents what would make their AI/ML tools more meaningful and effective for their 5G use cases.

- 37% of the respondents stated easier access to external data sources
- 32% answered that telco-specific models will help them to achieve this goal
- 14% cited eliminating data silos



Pie chart segments:
- Other, 1%
- Eliminating data silos, 14%
- Ensuring data pipeline is free of corrupted or inconsistent data, 16%
- More telco-specific data models, 32%
- Easier access to external data sources, 37%

**AI/ML tools for most pressing use cases**

Source: Omdia, n=106. © 2022 Omdia.

# The Amdocs approach

Customers are struggling with data management due to a lack of comprehensive logical data models, designed specifically for telcos and their operational teams.

These data models are necessary:

- For getting data for their daily operational data needs in their OSS/BSS environment
- For meeting the marketing, finance, customer care, regulatory, and business reporting needs of the teams that work with operational data
- For ML algorithm development, including data exploration, model creation and validation, deployment and MLOps

Telco-specific data models are essential for the mid- and longer-term telco goals, including:

- Supporting more AI and ML use
- Handling the rise in data types and complexity
- Effective data use in product creation

# Supporting the use of more AI and machine learning

Telcos are still in the early stages of their journey with these technologies. The rise in interest around Generative AI is one recent example of a critical turning point in the history of ML usage with a range of potential use cases for telco fraud, marketing and sales, and customer experience. Good quality data models are one part of the solution to provide these models with good training data and allow them to create quality synthetic data for a range of uses in the operational teams.

# Handling the rise of data types and complexity

In the near future, telcos will need to become "data-driven businesses" to compete successfully. This will require a multitude of data types from both structured and unstructured sources which, in their raw form, are often of highly variable quality and arrive in many different (and incompatible) formats.

New types of algorithms will be required to manage the data, and there will need to be consolidation at varying levels within the data and more powerful querying capabilities. Other activities, such as the use of robust data models to capture knowledge about this data, are also needed to enable telcos to move forward at speed.

# Increasing the variety of internal and external data users

Telcos are focusing on building a self-sustaining data practice to support citizen data scientists and other new users across the organization. When supporting these new roles, the gathering of knowledge from those who are experts in a particular data set and the systematizing of this knowledge in a business-ready and accessible data model is crucial, since this allows non-expert users to easily work with the data.
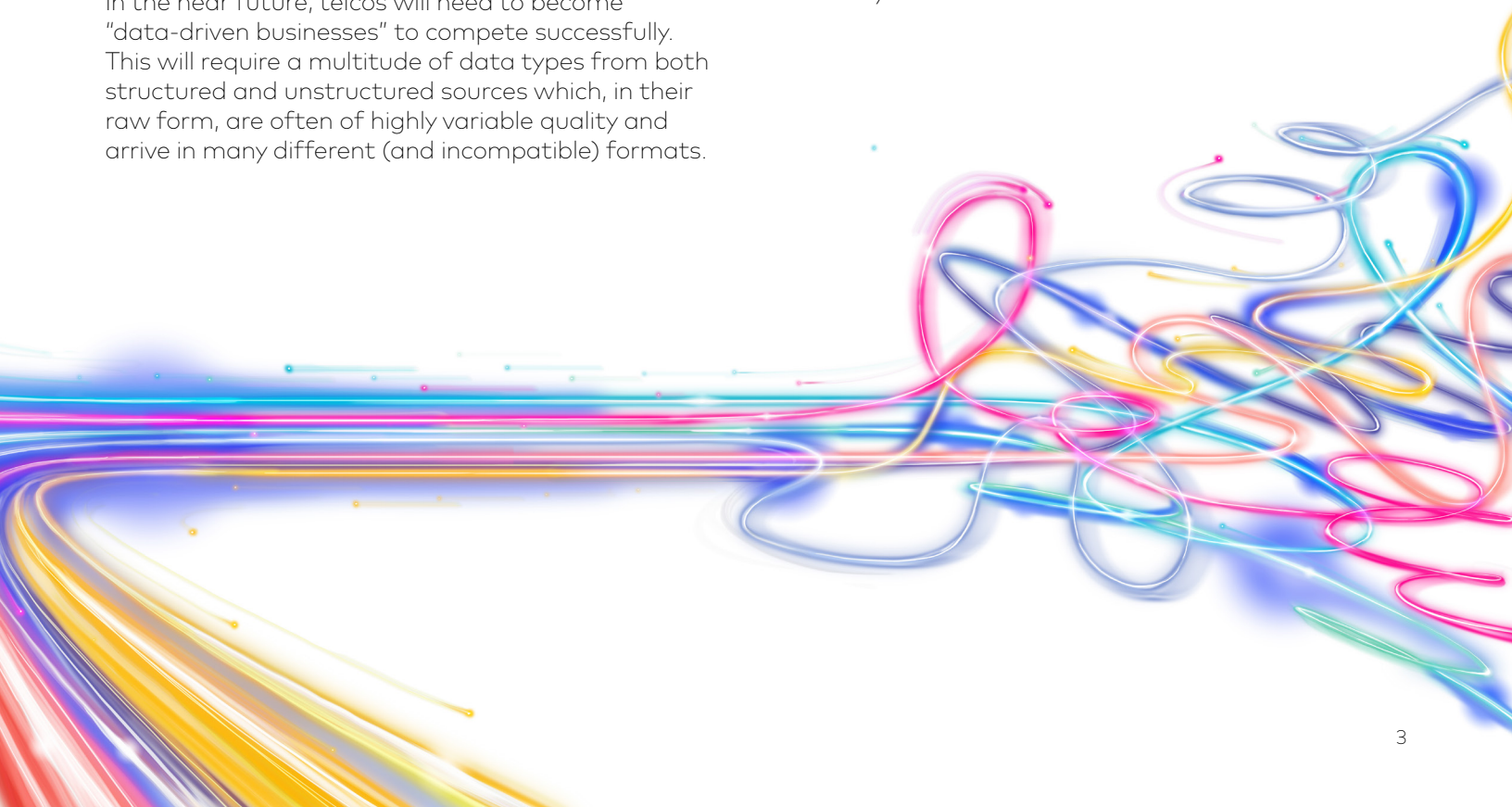
# Data Management Solutions Modernization

Communication service providers (CSPs) are facing the challenge of modernizing their analytical solutions to meet the demands of new use cases, modern technology, and near real-time operational reporting, as well as the need to provide integrated information to third-party systems. However, traditional industry-standard data models have limited support for these modernizations, and fail to cater to modern technology, near real-time business needs, and operational reporting or downstream interface needs. This has led CSPs to implement separate solutions for operational and analytical needs, resulting in issues such as inconsistent data, duplicated integration logic, high maintenance costs, and increased time to market for new reports and downstream interfaces.

# Amdocs Logical Data Model (aLDM)

To address these challenges, Amdocs has developed the Logical Data Model (aLDM), a TMF-certified integrated data model that is successfully implemented in over 20 Tier-1 and Tier-2 companies. The model offers two layers for operational and analytical solutions, optimized for modern technologies and near real-time processing. The aLDM covers a wide range of business domains, including BSS/OSS and network, B2C, and B2B. It supports over 60 operational and analytical areas, includes more than 1,000 entities, and has 16,000 attributes. The model is fully pre-mapped to Amdocs platforms and common non-Amdocs systems, making it a highly effective solution for CSPs looking to streamline their data management processes.

aLDM implementation can benefit customers in the following ways:

- Increasing business value by providing access to trusted, consistent, and usable data
- Empowering business users with data, insights, and AI to improve their daily work
- Improving the personalized customer experience of CSPs across all channels
- Accelerating time-to-market by implementing the pre-mapped matured industry-standard data model
- Reducing maintenance and implementation costs and risks
- Ensuring future readiness by supporting additional domains for new business needs and sources

# Conclusion

As telcos move towards being more data-driven, the discussion of the need for more intelligence and automation gives way to the practical implementation of a data strategy and data management architecture that can adequately support the new algorithms and processes needed. A key part of this architecture will be a data model for operational and analytical purposes, which delivers value by capturing and modeling data in a format and structure that supports the needs of multiple internal and external stakeholders. Implementing aLDM can help CSPs overcome challenges and achieve significant benefits.

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Listed on the NASDAQ Global Select Market, Amdocs had revenue of $4.58 billion in fiscal 2022.

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