

# DATA MANAGEMENT ON CLOUD LEVERAGING AZURE



# Overview

When we talk about enterprises present worldwide, what is the one thing that forms the backbone of the entire structure? Obviously, there are more than one pillars upon which the architecture is set, but among the most important is data management. It is mainly because the company's diverse information types are stored and secured at a higher level. Statistics reveal we produce approximately 2.5 quintillion bytes of data each day!

Here, data management plays a pivotal role in storing, organising, and securing each piece of data in a compact and accessible way. However, it is not as easy as one may think. Outdated data management and its storage could cost you a fortune if you don't have a plan for framing it correctly and strategically.

In this article, we will discuss how data management works today, several complications, and cloud migration strategies by which you can revolutionise your business.



# Data Management Today

As technology evolves each day, the system of storing and managing data is evolving. There are different types of data that any enterprise can produce. These could be categorised as– data preparation, pipelines, ETLs, catalogues, warehouses, governance, architecture, and many more.

Moreover, the global database management system (DBMS) is expected to reach US\$107.3 billion by 2027 (approx. 98 billion euros), which was estimated at US\$49.5 billion in 2020 (approx. 46 billion euros). The tools or technology used to balance them all are artificial intelligence or machine learning, augmented data management, DataOps, cloud computing, and many other technologies.

Even though these technologies have started to penetrate different sectors, there are still some gaps to be filled. Sometimes companies face obstacles that could easily be dealt with through smart strategies and innovative ideas.



Here are a few common challenges that can interrupt your data management infrastructure:



### High cost

The superior the technology you opt for, the higher the cost. A tool or technology that streamlines data management can cost you millions of dollars.



### Security issues

Security is the core of data management that should be handled super carefully. A data breach is a common concern if you don't have reliable technology to back it up.



### Limited flexibility as well as scalability

Not all technology gives you room to expand and scale your business. It comes with certain limitations that can hinder your flexibility and scalability.



### Incomplete usage

By incomplete usage, we mean that sometimes deciphering the data and giving it a systematic path is not as easy as it seems. And here, many players tend to lose points. They either fail to manage the data properly or are not aware of fully leveraging the data space.

Remember that the challenges are not limited to only these points. Each enterprise faces different challenges that need different strategies or viewpoints to be addressed.

# Cloud Migration Smart Strategy

As the name suggests, cloud migration involves data transformation into cloud computing. Cloud computing gives you myriad opportunities to grow and expand constantly. It barely comes with any setback since the complete advancement makes it one of the most reliable ways to carry out virtually any task.

In addition, it is imperative for all enterprises to map out the smart cloud migration strategy that could exponentially transform their business. According to Gartner, there are five Rs upon which your cloud migration depends. These are:



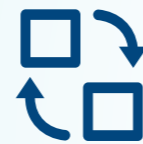
## Rehost

It means shifting your previous infrastructure into cloud computing, which involves Infrastructure as a service (IaaS). This option fits every organisation, even if you're unfamiliar with the concept.



## Revise

Next comes revising the old strategies. This requires quintessential changes to your system, that involve coding suitable for the cloud. It takes place to ensure that the system can fully utilise cloud infrastructure.



## Replace

The last option is to replace your current solution with one that is tailored to your business needs. You don't have to redevelop the native application from scratch. Instead, companies can enlist support of the prebuilt third-party application, where migration plays the biggest role.



## Refactor

This means modifying your system a little bit to make it compatible with cloud infrastructure. It involves Platform as a service (PaaS). The core, however, remains unaltered with a little bit of tinkering to make it adjustable.



## Rebuild

Fourth comes rebuilding upon the revised approach that eliminates junk and replaces it with new technologies. This step is completely based on the company's need to rebuild the new elements in their cloud infrastructure as per requirement.

Strategic cloud migration strategies could help your business with multiple elements and present loads of opportunities in front of you.

# Creating Opportunities for Enterprises

With cloud migration, companies receive different opportunities that could benefit them in the long run.



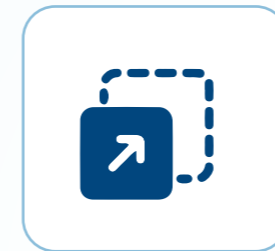
## **Opportunity to cut cost**

Companies can save huge chunks in resources, maintenance, and real estate. Moreover, you only have to pay for resources that you use.



## **Onboard advanced security**

You also get a build security feature and specialised cloud security tools to protect your data at every level.



## **Flexibility with scalability**

It also gives you an opportunity to alter and enhance the resources at any time as you see fit.



## **Simplify management and monitoring**

You also get a chance to manage and monitor cloud resources from a single screen with the help of a central management tool.

# In a nutshell

By now, you may have guessed that cloud migration is imperative for many enterprises, and a sound data migration strategy is essential to ensure seamless operations and business continuity. In today's world, significant volumes of data are generated from external and internal sources. Distributed storage and parallel processing have helped accelerate data processing. However, they still need to address dynamic scaling up of data acquisition, storage, and processing based on demand. Fortunately, the cloud has averted the problem of infinitely scaling storage and processing power on demand, providing a managed data landing zone for data ingestion.



# Reference

Data Management 2021: Trends & Technology that Will Define the Year

Data Management: What It Is, Importance, And Challenges

What is Cloud Migration? Strategy, Process and Tools

Database Management Systems (DBMS): Global Strategic Business Report

What Is Data Management?

Data management?

For more information

Visit our website: [www.easternenterprise.com](http://www.easternenterprise.com)

Contact Us: [marketing@easternenterprise.com](mailto:marketing@easternenterprise.com) | +31-74-2591801

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