

Twelve most prominent challenges of Data Storage and Data Management

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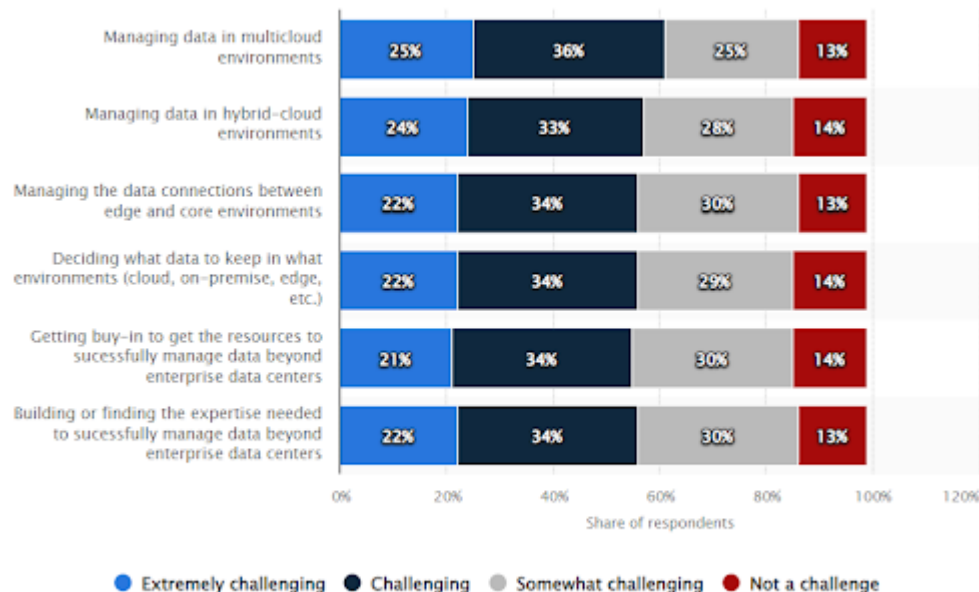
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Data storage and **data management** are some of the biggest challenges modern businesses face today. Not primarily because of the amount of data they have to manage, but because they may not have the right software or tools to do this effectively.

Data's growing volume, variety, and velocity make effective data storage management a moving target. And traditional data management methods fall short.

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As seen from the **statista 2022 report** above, more than 60% of the respondents find data management challenging along multiple dimensions.

Knowing about and understanding the challenges is the start of finding the right data management solution. Not all enterprises have the same challenges, but knowing about them will clarify the right solutions for your enterprise.

From our experience of deploying cloud data management solutions globally and from conversations with our customers, we've distilled the top five data storage and data management challenges plaguing CIOs and IT teams:

1. Humongous Data Storage volume

One challenge is the sheer volume of data that needs to be stored.

Suppose you're trying to manage all your data manually using traditional storage devices. In that case, it can take a lot of time and effort and lead to data fragmentation and incompatible formats.

This data fragmentation and lack of data portability make it difficult for employees or stakeholders to search and access the information when needed, which can impact productivity and customer service.

The amount of data (especially unstructured data) generated in the world is increasing exponentially, and there is no sign of slowing down. Managing this crazy volume, sorting through, and storing this data in different silos is one of the biggest challenges in data management.

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Worldwide data is expected to hit 175 zettabytes by 2025, representing a 61% CAGR.

- **IDC, “Data Age 2025”.**

The challenge of managing data is enormous. Enterprises must invest resources, talent, hardware, software, and tools to extract meaningful business intelligence. However, this business intelligence can do wonders for your enterprise if managed correctly.

Enterprises must assess whether their cloud service provider can meet their storage demands. Instead of just choosing a service provider for your current needs, select the one that can meet your enterprise's future needs. Also, implement sound data and email archival policies to manage vast data volume better.

2. Growing Data Types and Data Sources

Modern digitally-enabled organizations must store and manage data of different types originating from various sources.

Broadly these include structured and unstructured data, with the latter constituting about 80% of the total data volume.

And the data storage management conundrum spans departments such as finance, accounts, operations, customer service, HR, and more.

Each data type and source needs specific treatment while requiring an easy console to search and access this information.

- Where should each data type be stored?
- In what format should data be stored?
- What is the data retention policy for each category?
- What is the disposal policy for aging or out-of-use data?
- What are the policies governing access to this data?

Evolving a strategy and implementing a robust data storage and data management solution to store data long-term, classify and access this data diversity is a complex and expensive task.

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3. Too Many Data Storage Mediums

When your data is sourced from and stored in multiple sources like ERP, CRM, databases, internal servers, and the cloud, it becomes a challenge to go through, classify, process the data on a uniform platform, and use it for analytics and decision-making.

Enterprises need a robust data storage strategy and cannot be trying every new data storage method that is trending.

This problem can seriously compromise the quality of data and your ability to gather business intelligence from the data. And since every enterprise is tapping into the advantages of data-driven business intelligence, you cannot afford to be left behind.

In addition, compatibility issues may also crop up while using multiple storage mediums.

4. Legacy IT Architectures

Does your enterprise's IT architecture able to store vast amounts of data, process it, and continue to scale with growing data needs?

Getting exemplary IT architecture takes time, effort, and a lot of capital, but since the data is changing rapidly, keeping up with your IT architecture is becoming more difficult by the day.

Thus, IT architecture is one of the top data management challenges plaguing data storage and management. And this is quite a costly challenge.

Cloud is one of the best solutions to this issue. But there are too many options in cloud platforms as well.

5. Data Corruption

Storage devices can malfunction and corrupt the data. Electronic devices always have the potential of getting spoiled, so this risk is always looming.

Recovering data from corrupted devices is another capital-intensive expense, and there are no guarantees that you will recover the data.

The only insurance against data corruption is strong backup, recovery, and data redundancy policies. Therefore, if your data gets corrupted, you have a backup of the same data.

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6. Predictability of Data Needs

It's easy to say that you need to know about your data needs in the future, but it's hard to make an accurate prediction. What if your enterprise experiences exponential growth and you need to scale up your data storage abilities urgently? Or what if your enterprise does not need much data storage, but you have already invested capital anticipating a higher need?

Thus, predictability is one of the more significant challenges in data storage and data management.

Therefore, you need agile data storage and management systems that take out predictability factors and can scale up and down as needed.

Microsoft 365

Salesforce

Microsoft Onedrive

SendGrid

Freshdesk

Google Workspace

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7. Data Automation

All industries are not just moving but running towards automation. Automation has countless benefits but is also one of the central data management and storage challenges.

While data storage is not that challenging, automating data management is still difficult.

Since data comes from multiple sources and there's a lack of uniformity, automation of all the management tasks, including analysis, becomes that much more difficult.

As a result, enterprises must invest time, capital, and a lot of resources to get automation right.

8. Data Governance:

A set of rules and regulations are required to manage an enterprise's data, especially an enterprise that generates a large volume of data. Many enterprises lack this.

Enterprises must create a framework to manage their data. Some elements of the framework include:

- What data needs to be deleted
- What information needs to be archived and for how long
- What information needs to be permanently stored
- Which employee gets what level of access, and more.

The team creating the rules and regulations should consider many such important queries and formulate **data governance** policies based on them.

These policies and automated implementation will address one of the main challenges of data management in an organization.

9. Adhering to Industry Compliances

Today, industry compliances have become the norm. Many enterprises now need to store and archive data based on the industry compliances by governments or private regulatory authorities.

These compliances are for the benefit of the customers and enterprises. In addition, following these compliances can give your enterprise legal protection in case of litigation. Though not impossible, following industry compliances can be challenging.

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Enterprises face difficulties understanding, formulating, and implementing data protection, governance, and security solutions per the rules and regulations to ensure they account for all industry compliances.

10. Data Security and Recovery

After you have strategized the storage and classification of the massive data you must protect, the next big challenge is security.

A poorly protected data environment could lead to theft, destruction, or a total wipe out of all your critical information.

Hackers, cheaters, frauds, and other malicious people are always looking to steal critical data, which they can use to hamper an enterprise's functioning, pocket money, harm reputation, or even attack IT infrastructure.

*85% of data breaches strike small businesses. That's about 4,000 a day - A **cybercrime survey of 1300 SMB owners**.*

And 60% of small businesses hit by a cyber-attack shut down inside of six months- USLI (Federal Trade Commission Statement, March 2017).

Considering the growing number and sophistication of cyberattacks, you have no choice but to deploy the **best-of-breed defense** for your business-critical data.

However, building a **multi-layered security framework** maintained by 24/7 vigilance and made resilient with a positive feedback loop requires expertise and massive investments.

Most organizations fall short.

*54% of small and medium-sized businesses have no plan in place to deal with a cyber-attack. And another 20% say you'll react when something happens - **Cybercrime survey of 1300 SMB owners**.*

As the cloud moves from a platform for hosting communication tools to a platform for data storage and data management, **cloud data protection** takes center stage.

Adopting cloud services and SaaS for data storage and management is increasing as organizations benefit from the fully managed offering, scalability, robustness, and multi-layered shared security model.

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11. Data Storage Management Costs

Storing all data long-term is no longer an option for industries due to stricter **regulations** and **laws**.

Traditional methods of protecting and managing continuously growing data are hitting limits with escalating costs of refreshes and upgrades.

Infrastructure and management cost overruns comprise the need to add storage, secure it continually, have a team to maintain and monitor the setup and ensure a disaster recovery site to deliver on data durability needs.

Opportunity and risk costs include the delays or inability to find and extract information when needed, ensure proper data disposal for aging data, reduce data tampering, and more.

Modern Organisations are turning to **new-age cloud data protection solutions** which optimize costs along multiple dimensions like **storage tiering**, de-duplication, pay-per-use, automation, and more. Without compromising the essential capabilities to help you govern data, secure it, access it, and manage it along the **complete lifecycle**.

12. Privacy Regulations and Laws

Governments put these regulations in place to protect citizens from having their personal information stolen or used without their consent or knowledge.

Organizations that collect and store critical and personal information from their customers must comply with these regulations and laws.

Some of these laws and regulations tenets are data residency, data encryption, data classification, the ability to locate data with critical templates like PII or financial details, adhering to the consumer's right to delete their data from your systems, and more.

Without investing heavily in solution building and an operational team to maintain and deliver on these tenets, most organizations end up being on the wrong side of the law.

New-age companies are seeking **cutting-edge cloud solutions** to help them protect their customer's critical data while quickly adhering to regulations and laws on data privacy.

Related: **GDPR Shared Responsibility model**

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How to Overcome Data Storage and Data Management Challenges?

You must tackle the many challenges in data storage and management for your enterprise to grow and keep up with the data-driven and business intelligence-empowered world.

While these challenges are daunting, organizations can overcome them by adopting **cloud-based data storage and management solutions**. These solutions deliver unprecedented scale, **high data durability, robust security**, and **rich cloud services** to help manage your ever-growing data.

Vaultastic has helped global companies overcome these challenges at up to **60% lower costs**, without compromise. Experience the freedom of solving your big data problems. Sign up for a **30-day free trial** today!

Related: Key Components of Modern Enterprise Data Management [Elements]

About Vaultastic

Vaultastic's groundbreaking data protection and management platform with atomised, automated, and on-demand data management service, offers centralized archival & supervisory controls, quick discovery, and data activation, with high volume data protection in elastic & hierarchical stores and complete data portability.

The key feature is its cross-platform archival capability, automatic storage management, atomised discovery, and activation. Delivering cost savings of up to 60% on data management costs.

Want an in-depth discussion?

Our customer success team is ready to talk to you, to understand your specific data management challenges and suggest the best possible solution, to minimise disruptions, productivity loss and costs due to data-related risks.

[Free Consultation](#)

Ready to evaluate Vaultastic?

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Why businesses need a modern data strategy. Know more



Sunil Uttam

Co-founder and Chief Solution Architect at Mithi.

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Sunil's primary responsibility is finding solutions for the technical and business challenges prospects and customers might have. Sunil has over 30 years of experience creating scalable IT products in the Email, Collaboration, Security, and Data Management space. Most of his insights and ideas are born from his hundreds of conversations with prospects and customers alike.

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