

Big Data Comes with Big Management Challenges

Enterprises see potential in the cloud for improving data control and adding value to the business

The word “data” may first bring to mind tables with information placed neatly into rows and columns. In reality, the data collected, stored, and used by any enterprise encompasses many different forms. Yes, there are databases with rigid structures. But unstructured data—documents, spreadsheets, emails, social media messages, even images and video—are also essential assets for many of today’s business decisions and operations.

Together, large volumes of structured and unstructured data, also called big data, present a big challenge: Their usefulness is hampered by current methods for data storage, management, and access.

In fact, 64% of respondents to a new survey by IDG Research say handling unstructured data, in particular, in some way hinders their ability to achieve business goals for big data. One survey participant notes, “Unintelligent data is of no value to the organization, and in fact, increases costs.”

Within IT a view is emerging that traditional methods for data management and access will become unsustainable. The reasons include ever-growing data volumes and greater use of analytics in many aspects of business planning. As a result, many IT departments seek alternatives to maintaining an in-house infrastructure for data storage and access.

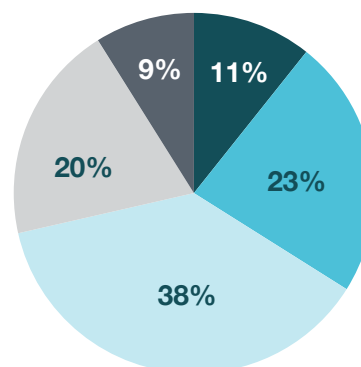
Seeing Potential in the Cloud

“Our data is currently all over the place and needs to be reeled in,” says one survey respondent, reflecting the situation facing many IT managers. One place where respondents are actively exploring potential solutions for data storage is the cloud: 7 in 10 are willing to give some consideration to a single, cloud-based data repository.

But what does a cloud-based data solution look like? In this design, a cloud service provider (CSP)

Willingness to Consider Cloud-Based Data Analytics Stack

Likelihood of Considering Cloud-Based Data Analytics Stack to Create a Single Data Repository



- Extremely likely to consider
- Very likely to consider
- Somewhat likely to consider
- Not very likely to consider
- Not at all likely to consider

Source: IDG Research May 2016

creates a single, central repository (also called a data “lake”) for storing and managing access to data, both structured and unstructured. IT no longer needs to build, manage, and maintain an in-house server and storage infrastructure. Instead, handling data becomes a managed service that the CSP provides for a monthly fee. The data is stored in the CSP’s data center and accessed over an Internet or private network connection.

Enterprises Have Cloud Concerns

Although survey respondents are willing to consider a move to such a model, they raised three top concerns about cloud solutions for data: security, compliance, and costs.



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More than 7 in 10 respondents are willing to consider cloud services for a single data repository.

Security. Organizations are understandably cautious about the security of housing valuable business information in an off-premises data center. Their concerns highlight the need to thoroughly vet a service provider's protection policies and procedures, as well as the infrastructure for both physical and cyber security deployed in the CSP's data center facilities.

Another factor for protecting data access is the resilience and failover capabilities of the provider's cloud services and data centers. IT leaders should ask how the provider uses redundant infrastructure, facility location, and distributed application architectures to maintain a high service-level agreement (SLA) for data access.

One reassuring factor is that security concerns may diminish after the company gains experience with cloud services. Seventy-seven percent of respondents to the IDG Enterprise 2015 Cloud Computing Survey are confident about the security of data they already store in the cloud.

Compliance. Businesses that must meet stringent regulatory requirements for data management should evaluate a CSP's compliance standing. Check the certifications awarded to the provider's data center, applications, and services. Other relevant credentials include Uptime Institute Tier ratings, reviews for security operations center (SOC) compliance, and assessments of compliance with Payment Card Industry (PCI) standards.

"A service provider should be able to readily provide all of these documents, as well as proof of historical and ongoing compliance audits," says Doug Mays, product manager for cloud services at C Spire.

Cost. Cloud services are typically paid as a monthly fee from an operating budget. An initial capital investment may be necessary for connecting to the provider's data center, although this cost is typically much lower than building or

adding to an in-house data infrastructure. As one survey participant notes, "[Cloud services] control costs and allow for unrestricted growth as opposed to investment in a local hardware farm."

Cloud Advantages for Big Data

IDG survey respondents say cloud services have several advantages that translate to significant business value, as shown in the table:

Ranking	Cloud Advantage	Perceived Business Value
1	Implementation time savings	Faster insights and decision-making
2	Better access	Data can be put to use throughout the organization
3	Lower costs	Reduces need to build and maintain internal data infrastructure
4	Flexibility	Data storage and access can adjust dynamically to changing business needs
5	Scalability	Easier to accommodate large and growing data sets

Source: IDG Research, May 2016

"Industries with high data volumes such as healthcare, banking and finance, and government—as well as any organization that wants to consolidate data from disparate applications—could find benefits in using cloud services," says Mays. "The size and type of the business is not as important as the use cases, including data that needs high-powered computing resources, large storage capacity, and sophisticated analytics tools."

Conclusion

Data in all forms will continue to grow in volume and play an ever-more important role in the organizational activity and decision-making of today's business. At the same time, the challenge of storing and maintaining data for easy access and necessary use is also growing. As the IDG survey indicates, as enterprises seek ways to increase the business value associated with big data analysis and insights, assessing the value and services of a cloud provider should be a high priority.

For more information on cloud solutions for big data, visit: www.cspire.com/cloud