

Data Integration Reaches Inflection Point: Survey Results



Highlights

- With data quantities increasing from all sources, particularly the emerging Internet of Things (IoT), organizations are facing the fact that their current infrastructure may not be up to the task of handling all of it.
 - As IT leaders consider how to handle growing quantities of data, the survey found significant discontent among respondents with regard to current data integration solutions.
 - Over the next 12 months, the top data priority for organizations is data governance/compliance/quality.
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Introduction

Data is the lifeblood of business. And in the era of digital business, the organizations that utilize data most effectively are also the most successful. Whether structured, unstructured or semi-structured, rapidly increasing data quantities must be brought into organizations, stored and put to work to enable business strategies. Data integration tools play a critical role in extracting data from a variety of sources and making it available for enterprise applications, business intelligence (BI), machine learning (ML) and other purposes. Many organizations seek to enhance the value of data for line-of-business managers by enabling self-service access. This is increasingly important as large volumes of unstructured data from Internet-of-Things (IOT) devices are presenting organizations with opportunities for game-changing insights from big data analytics. A new survey of 369 IT professionals, from managers to directors and VPs of IT, by BizTechInsights on behalf of IBM reveals the challenges organizations face in integrating data, their priorities for improving data integration, and the need for help in the data integration process.

Survey Findings

New infrastructure is needed to handle the amounts of data organizations are generating.

Investment Drivers for Data Integration

With data quantities increasing from all sources, particularly the emerging IoT, companies are realizing that their current infrastructure may not be up to the task of handling all of it. According to the survey, the need for new infrastructure was the top driver behind the decision to invest in a data integration solution (32%).

The recognition of new infrastructure as the most important investment in data integration is logical, because of the impact it has on the other decision drivers covered by this survey question: The need to provide self-service data to persons across the organization (24%), the need for trusted data for analytics or machine learning (23%), and the need for an ETL solution for applications (21%).



Costs Are Too High

As IT leaders consider how to handle growing quantities of data, the survey found significant discontent among respondents with regard to current data integration solutions. Cost was the biggest complaint: 40% said those solutions are getting too expensive. Meanwhile, 19% said their current data integration solutions can't handle all data sources. Those concerns appear to be leading organizations to seek alternatives of which 29% said they are thinking about building their own data integration system.

Top Concern: Self-Service

The ability for business managers to access data on a self-serve basis is a much desired productivity enhancer. Making data available quickly increases business agility by speeding up decision making. With that in mind it was no surprise that creating a self-service data environment was the top concern of organizations with regard to data integration (21%), a finding that reflects its high ranking among investment drivers as noted earlier.

Self-service makes data available quickly, helping to increase business agility.

However, self-service is not the only integration concern. Tied for second place are extracting, transforming and delivering application data (18%), and integrating data for business intelligence, analytics and/or data warehousing (18%). Additional concerns are dealing with data inconsistency between applications (15%), managing data in a data lake or lakes (14%) and sharing data with external business partners (14%).

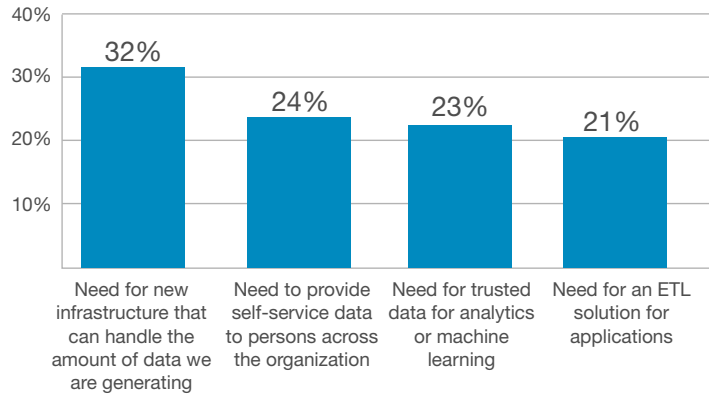
Current Needs Span a Spectrum

IT decision-makers face a number of integration requirements reflecting the different data systems they have deployed across their enterprises. The survey found five categories are important, with no single need clearly exceeding all others. Managing a data lake (21%), moving to the cloud (21%) and provisioning a data warehouse (21%) were all bunched together, followed closely by integrating data within Hadoop (20%) and transforming and integrating data (16%).

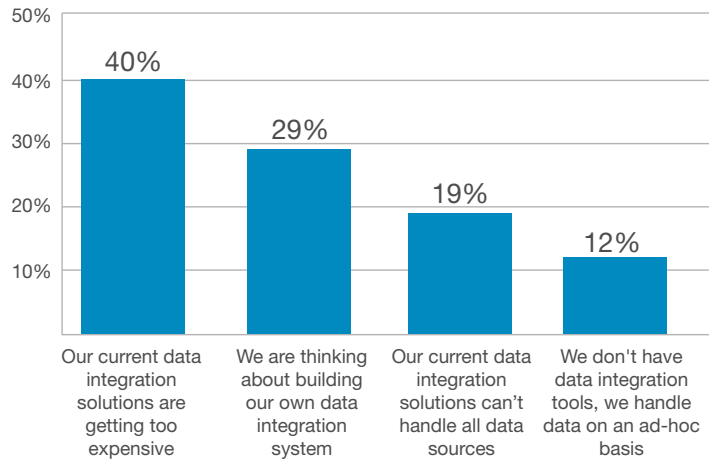
Top Twelve-Month Priorities

Over the next 12 months, organizations have several priorities with regard to data integration. The top priority is data governance/compliance/quality (31%), the benefits of which will be felt across most of the data systems in the enterprise. No doubt reflecting the concern of many IT leaders with highly publicized data breaches, data security (28%) was the next greatest concern. Creating a self-service environment for data access ranked next (21%), followed by providing integrated data to a select group of employees (20%).

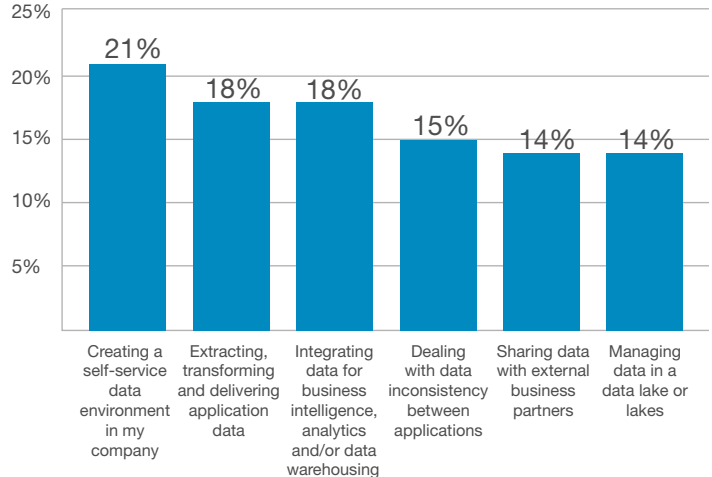
What is driving your decision to invest in a data integration solution? (Choose all that apply.)



When it comes to data integration, which of the following apply?



Which of the following most concern you?



Most IT decision-makers need external help with data integration.

Data Integration: Help Wanted

The need for external help with data integration is widely recognized by 70% of IT decision-makers. Fully 27% appear ready to take on the services of an external integrator and have the budget and personnel for it. However, a significant portion of respondents face obstacles: 21% said they need external help with data integration, but don't have the budget; 21% said they need external help with data integration, but don't have sufficient personnel.

Conclusion

IT leaders are well aware of the importance of data to the success of their enterprises. They recognize the role of data integration to their strategies for deriving value from data, whether from current data deployments or for use in new initiatives such as big data analytics or machine learning. Data integration is also seen as a key factor in providing self-service access to data across the enterprise.

However, current data integration systems are being overwhelmed by the surge in data quantities from the rise of digital business and IoT. Many respondents are looking to replace their current infrastructure due to high costs. In many cases they will build the new integration systems themselves, but a significant majority recognizes the need for external help in their data integration efforts.

Quick wins

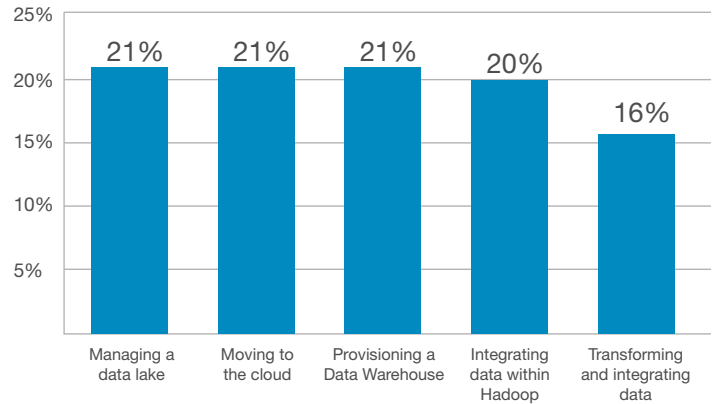
Take a look at these blog posts on considerations for your unified data platform journey, a look at data compliance and the importance of data governance.

Considerations for your unified data platform journey
<https://ibm.co/2AGcROk>

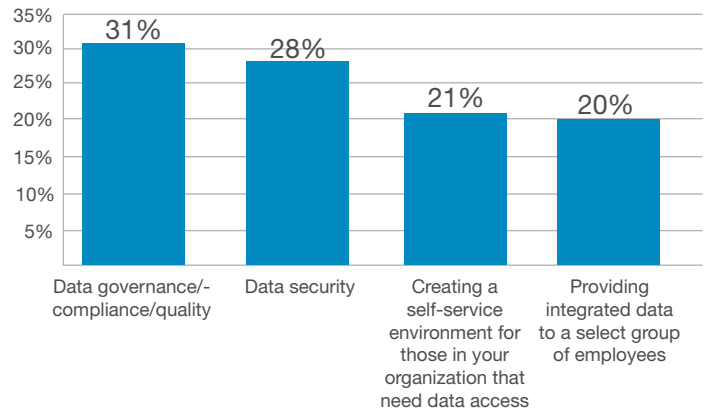
A look at data compliance
<https://ibm.co/2AcEy5T>

The importance of data governance
<https://ibm.co/2CRSGTo>

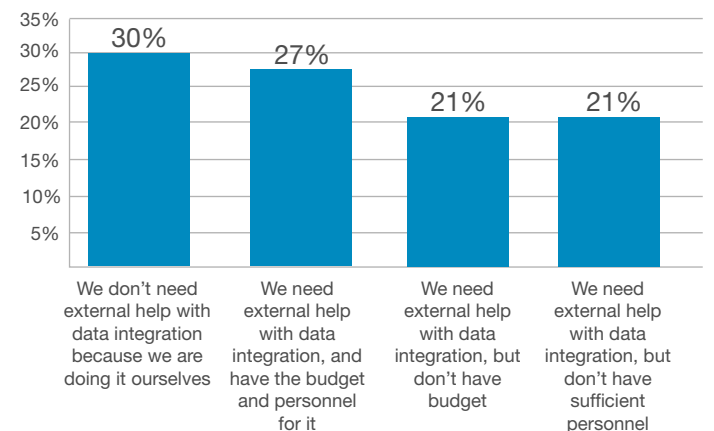
What particular needs do you have in your current environment? (Choose all that apply.)



What are your organization's data integration priorities over the next 12 months?



Which of the following best describes your organizational attitude towards getting external help for data integration?



About IBM

IBM believes that organizations can exploit the power of data to transform their business. New types of data (Machine Learning/IOT) are now available for organizations to use. In the journey from being data-driven to being insights-driven, organizations must build a modern enterprise analytics architecture that enables them to know their data, trust their data and use their data. IBM offers the most comprehensive Unified Governance and Integration platform and solutions, allowing you to meet the demands of your enterprise on any environment - on premises, on cloud, and hybrid - at any scale. Unified Governance and Integration delivers trusted data for insights and compliance to businesses, governments and individuals by enabling a modern Enterprise Analytics architecture. From governing your data lake to achieving self-service analytics, learn more about Unified Governance and Integration at ibm.com/unified-governance. Follow us on Twitter at @IBMAalytics, on our blog at ibmbigdatahub.com and join the conversation #IBMUG.

Survey Methodology

BizTechInsights conducted an online survey on behalf of IBM in November and December 2017. A total of 369 individuals completed the survey. BizTechInsights was responsible for all programming and data analysis. The survey pulled in responses from IT managers to directors and VPs of IT belonging to companies and organizations with more than 1000 employees, located in the United States and abroad.

Respondents belonged to a variety of industries from financial services, healthcare, and utilities to broadcast media, government and accounting. For a deeper breakdown, please look at the grid below:

Titles	Percent	Geo	Percent
Director	42%	North America	49%
Manager	24%	Europe	20%
Head	19%	Asia	31%
C-Level/ VP/Sr VP	9%		
Misc	6%		