

Integration Automation for Data-Driven Business Operations

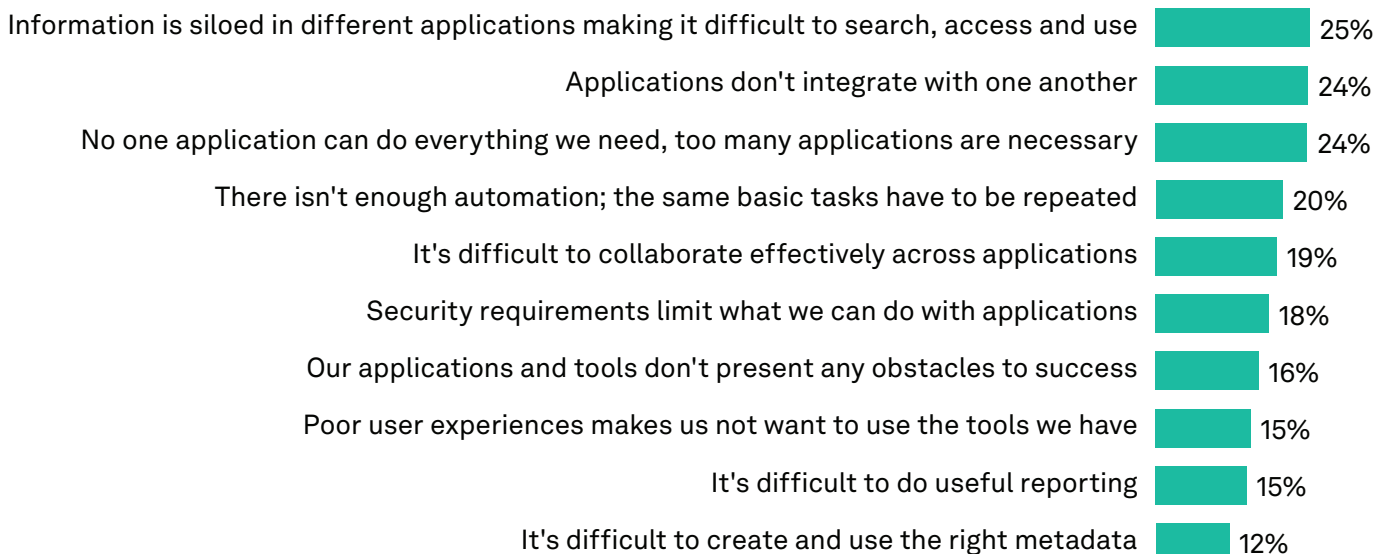
The 451 Take

Recent research indicates that successful digital businesses are becoming increasingly data-driven. In a 451 Research survey of 679 business and IT decision-makers at companies ranging from small firms to global enterprises across multiple industries, 68% of respondents said that nearly all or most of their strategic decisions are data-driven. The benefits of being data-driven are many and varied. Modern digital businesses rely on data analysis to reveal new ways to create competitive advantage by improving efficiency in business operations; deriving new value via enhanced customer engagement and services that increase sales; discovering new ways to control costs; improving regulatory compliance; and developing new data monetization strategies.

Meanwhile, as a result of other IT industry trends, sources of data are becoming increasingly distributed. The shift away from on-premises non-cloud infrastructure continues. Digital businesses today use myriad disparate on-premises infrastructure, cloud services (IaaS, PaaS, SaaS), managed services and hybrid clouds, and they are increasingly generating data from devices at the network edge (IoT) – all widely dispersed across a complex hybrid IT landscape.

Unfortunately, these two trends oppose one another. While one seeks to aggregate data to extract value from it, the other distributes data from a greater number of sources, which makes it difficult for users within companies to find and access the data they need in order to be data-driven. To better understand the challenges created by these opposing trends, 451 Research conducted a Voice of the Enterprise survey that polled 768 business and IT decision-makers about the obstacles they face when attempting to modernize their digital business operations.

Data and Applications Are Siloed and Distributed



Q. Thinking about all the different applications and tools your team uses, which of the following are the biggest obstacles to your team's success?

Base: Workforce respondents (n=768)

Source: 451 Research's Voice of the Enterprise: Workforce Productivity & Collaboration, Work Execution Goals & Challenges 2020

The survey findings indicate that companies are inundated with the number of applications they use in day-to-day operations, and that these applications don't sufficiently integrate with one another. Indeed, information and data remain siloed within departments, databases and applications. Moreover, there are few tools available to automate the discovery, access and integration of data needed for proper and accurate analysis. Successful data-driven companies overcome these obstacles by taking a new approach to integration strategy. They seek data and application integration technology that can quickly automate the connections between distributed applications and data sources, and expose relevant data to users on-demand. An emerging subset of integration vendors is focusing on this market opportunity and have been investing in technology that can enable "data connectivity as a service" for enterprises.

These vendors are developing and bringing to market unified platforms with "low-code/no-code" capabilities that include visual models, preconfigured connectors, prepackaged workflow templates, and graphical design drag-and-drop tooling to "compose" rather than "code" data connectivity and integration workflows. They automate the effort and tasks required to connect data sources, aggregate and integrate the data needed for analytic projects, and expose that data to other applications and analytic tools. They can accelerate development and deployment cycle times of data integrations, and can be rapidly changed or modified.

The benefits derived from these platforms can shorten the time needed by tech-savvy integration professionals and data scientists to make use of the data they seek. More importantly, perhaps, these platforms can free up often-constrained IT sources. The low- and no-code features mean these tools are more intuitive to use, making them appealing to less tech-savvy business analysts and others in a growing population of "citizen integrators" who need easier and faster ways to discover, access and use the data they need in a self-service manner. Overall, this evolving class of integration platforms will enable enterprises to be more data-driven in the performance and execution of business operations.

Business Impact

On IT organizations. IT organizations are typically inundated with requests from lines of business to access new types of data from disparate, distributed sources. Integration vendors are now bringing to market tools to enable data connectivity as a service that can unburden IT resources, freeing them to concentrate on higher-value initiatives.

On developers and users. Data is useless unless it can be placed in the hands of those who need it, can interpret it and can extract value from it. The low-/no-code integration platforms coming to market will indeed appeal to data scientists as a way to hasten their analysis and findings. Greater value, though, will come from their use as self-service data distribution platforms, put in the hands of less technical business analysts and line-of-business users.

On the enterprise. Integration technology is maturing to make it easier for enterprises to become more data-driven. Emerging integration platforms are now better equipped to overcome the challenges that arise when data, applications and processes transcend multiple distributed runtime venues, and the unique and proprietary designs of various IT vendors and cloud service providers.

Looking Ahead

Going forward, the evolution of the integration technology market will be influenced by artificial intelligence, machine learning and data analytic requirements of data-driven digital businesses. These enterprises will seek capabilities that enable greater efficiency in business process integration and orchestration; provide stream processing for real-time business operational analysis; support data ingestion to in-memory computing architectures; enable better and simpler means to capture and manage metadata; and improve the orchestration of containers, microservices and serverless functions as part of the migration toward cloud-native computing.



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