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Digital Businesses Demand Agile Integration

Integration Technologies Should Reduce The
Burden Of Data Integration And Management

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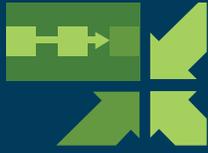
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Companies recognize the strategic importance of integration and they are choosing new technologies and approaches which enable greater value from data.

Unified, microservices-based platforms for integration and data management, plus service approaches, help companies focus their integration on strategic priorities rather than on the technical implementation and integration maintenance.

Executive Summary

Digital transformation has multiplied the number of packaged applications and the interfaces that support them. It also requires a greater agility from businesses to follow growing customer demands for value, innovation, and new and improved digital interactions. This means that interfaces must constantly evolve to support the continuous integration and continuous delivery (CI/CD) of systems of engagement. These applications are under pressure from customer experience, employee experience, and the required operational excellence of automation systems.

The explosion of data from new sources and interactions has become a key ingredient for success in digital transformation. As a result, the interfaces that provide data consolidations are becoming a crucial element for responsive business answers. This need for rapid transformation has pushed companies to evolve their requirements for apps, data integration, and data management, allowing organizations to bring the best out of their core competencies and combine those with technologies to have a bigger impact on business operations and strategy.

In December 2018, Liaison Technologies, an OpenText™ company, commissioned Forrester Consulting to evaluate how companies are approaching integration and data management. To explore this topic, Forrester conducted an online survey of 158 respondents with responsibility in data integration and technology buying decisions, or strategic decisions, on business transformation. We found that companies recognize the strategic importance of integration and are choosing new technologies and approaches which enable greater value from data.

KEY FINDINGS

- › **Data sources, applications, and vendors have increased.** Eighty percent of firms in our study said the volume and variety of data has increased. Sixty-five percent stated the number of applications they use for business has spiked, and 50% said the number of vendors, suppliers, and partners they must work with has also increased.
- › **Integration challenges impact business outcomes.** Along with several data quality issues, firms must also tackle integrating a rising number of applications and data sources. Business repercussions resulting from operational and technical challenges include revenue loss, losing customers to competitors, and difficulty optimizing processes.
- › **Firms adopt new approaches and technology to maximize value from data.** Eighty percent are currently upgrading or planning to upgrade data integration technologies and more than half are taking a managed services approach. New technologies (unified, microservices-based platform, cloud and multicloud, containers), and service approaches (fully managed services or cloud-based services) allow firms to get more value from data, rather than focusing on the technical implementation and integration maintenance.

Digitalization Has Increased Integration Complexity

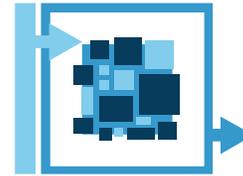
The digital age has raised the stakes. Businesses are faced with a long list of expectations to be customer-obsessed, i.e., they must be data-driven, agile, predictive, etc. As companies digitally transform to meet continuously rising expectations, they are creating new interfaces and rapidly deploying new applications that provide them with an abundance of data. This is good news only if companies can fully leverage their data. The insights that are generated from today's wealth of data, when it is freed from silos, can help companies identify opportunities for innovation, drive new digital business processes and models, and enable process optimization.

Central to leveraging this data is a company's ability to integrate and manage it. For this reason, data and application integration are becoming key, but often underestimated, components of digital execution. Regardless of the focus of any digital transformation goal — whether to increase customer centricity, improve business insight through analytics, or quickly respond to market shifts — integration and data management are the driving forces behind these efforts.¹

The right integration strategy — a comprehensive end-to-end approach that converges data integration and data management, application integration, B2B integration, and internet-of-things (IoT) integration into a coherent set of capabilities, reducing the burden of managing an increasing number of connections — is foundational to the type of digital transformation that prepares a firm to react to an unpredictable future of digital disruption. We found that most firms agree that integration technologies are a strategic investment for digital transformation (see Figure 1). This need for rapid transformation requires an evolution of integration technologies to have a bigger impact on business operations and strategy.

Our study with 158 data integration decision makers found that certain market conditions are urging this need for change (see Figure 2):

- › **Digital transformation has multiplied the volume and variety of data sources, the number of apps, and the number of vendors to connect.**
 - Eighty percent agree that the volume of data and the variety of data sources have increased. Data provides valuable insights, and managing data in motion well is a differentiator for firms.² But firms must focus on getting the most out of data, rather than dealing with maintaining skills in data management, data movement and preparation, or data governance.
 - Sixty-five percent confirm that the number of applications they use to run their business has spiked. All these applications require support, so it's no surprise that 70% tell us this increase is also reflected in the number of interfaces. As interfaces absorb larger volumes, event treatments, and increased data structure complexity, firms must rely on integration technologies to automate interface monitoring, development, and maintenance.³



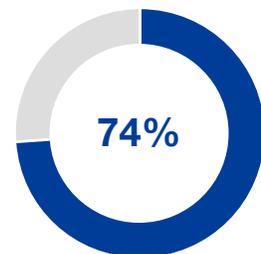
Integration and data management are driving forces behind digital transformation.

Figure 1

“How strongly do you agree with the following statement?”

“Integration technologies are a strategic investment for digital transformation.”

■ Strongly agree or agree



Base: 158 decision makers with responsibility/influence in data integration, and either technology buying decisions or strategic decisions on business transformation.

Source: A commissioned study conducted by Forrester Consulting on behalf of Liaison Technologies, an OpenText™ company

- Fifty-five percent tell us that the number of vendors, suppliers, and partners they need to work with has also increased. Most are unable to manage the increase in data, interfaces, and applications on their own and rely on expert help to support these shifts.
- › **Integration strategies have become more complex.** To better support digital initiatives, integration strategies today require multiple components, from cloud-based integration platforms, B2B integrations, APIs, extract – transform – load (ETL), IoT integration, business automation rules, and much more.
- › **Simple iPaaS tools are weak.** There are multiple tools that can enable integration, from the simplest IFTTT to the most complex and completely hybrid integration platforms. In between are simple integration-platform-as-a-service (iPaaS) solutions as well as strategic iPaaS. Most agree that simple iPaaS developer productivity tools are unfit for complex integration projects. Nearly 70% report that these tools increase data security or compliance risks, direct their resources to less strategic tasks (63%), create resource strains (60%), and don't meet the needs of complex integration (52%).

Figure 2

“How strongly do you agree with the following statements?”



Base: 158 decision makers with responsibility in data integration, and either technology buying decisions or strategic decisions on business transformation

Source: A commissioned study conducted by Forrester Consulting on behalf of Liaison Technologies, an OpenText™ company

Integration Development And Operations Are Already Under Pressure

Most data integration decision makers, 96%, reported that their companies experience multiple challenges with integration, primarily with (see Figure 3):

- › **Maintaining data security and quality.** Companies face many data-related challenges, including: difficulty maintaining compliance with data privacy and security regulations; harmonizing data and ensuring data quality for use with analytics tools; refreshing data in real time; and processing increased data volumes and varieties.
- › **Integrating an increasing number of applications and data sources.** As the number of applications and data sources continues to rise, companies find it difficult to continuously integrate them into a cohesive approach. More than half of data integration decision makers highlight this as one of the top challenges they experience with their integration strategies.
- › **Finding skilled resources.** More than half struggle to find resources with integration skills. Implementing integration technologies requires knowledge of technical (security, scalability, data at rest and in motion), business (business processes extensions or moment within customer journeys), and integration (canonical formats for reuse, APIs) to correctly develop interfaces. In previous generations of integration technologies, these rare skills were grouped into centers of excellence or competency centers. But now integration skills should be in every data science and development project team.
- › **Enabling lines of business to self-serve.** Often, the lack of skills within the business units (centralized, grouped, and shared resources) affects the pace of systems of engagement and analytical systems projects. As the integration skills are rare and the business users always want more agility, some simple integration responsibilities under the right level of scrutiny can be delegated to business users.

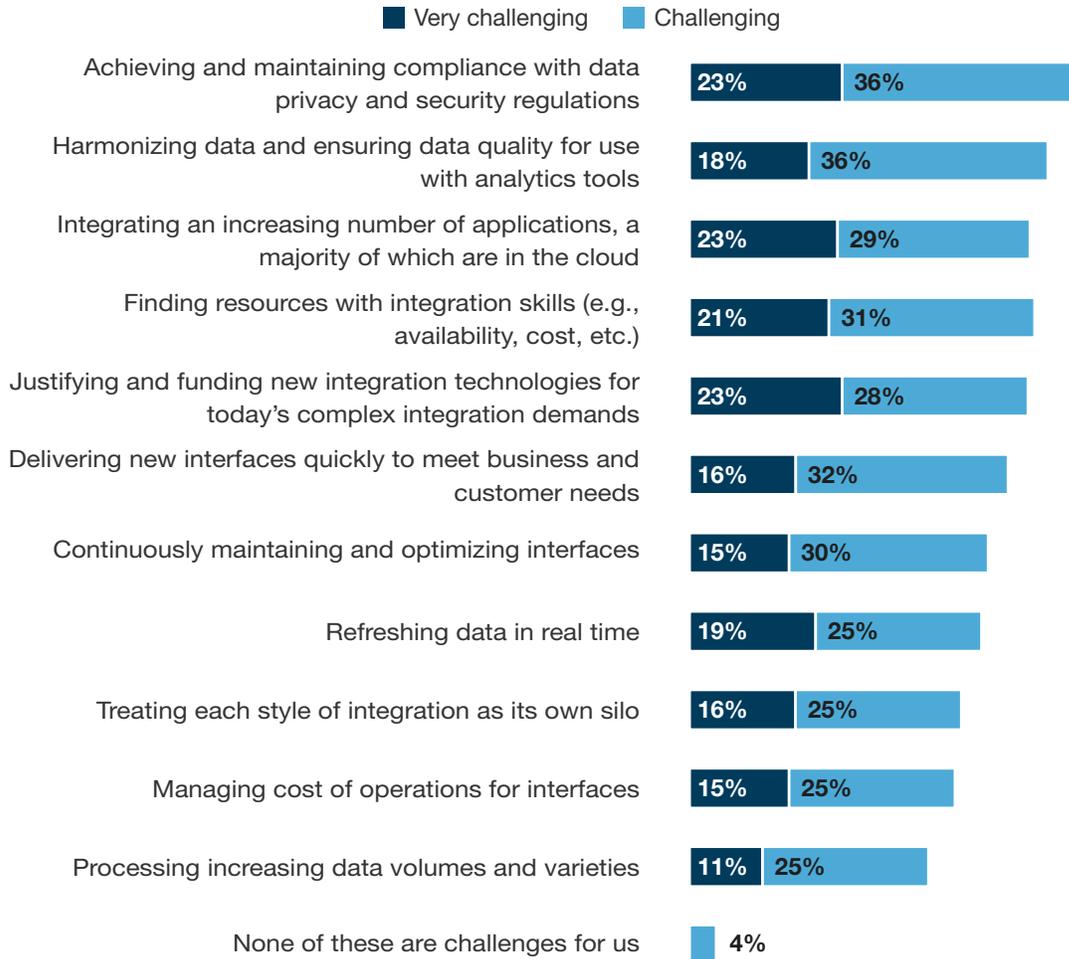
But challenges with integration implementation continue to evolve with rising subjects like privacy, real-time data for better personalization, volumes, and more.

These challenges come at a cost, however: 93% of firms in our survey believe there are business repercussions as a result of the operational and technical challenges with their integration strategies. The biggest consequences cited are revenue loss, losing customers to competitors, and difficulty optimizing processes.

93% of firms believe the operational and technical challenges with their integration strategies result in serious business repercussions like revenue loss, losing customers to competitors, and difficulty optimizing processes.

Figure 3

“How challenging are the following aspects of your company’s integration strategy?”



Base: 158 decision makers with responsibility in data integration, and either technology buying decisions or strategic decisions on business transformation

Source: A commissioned study conducted by Forrester Consulting on behalf of Liaison Technologies, an OpenText™ company

Bring A Managed Service Approach To Data Integration

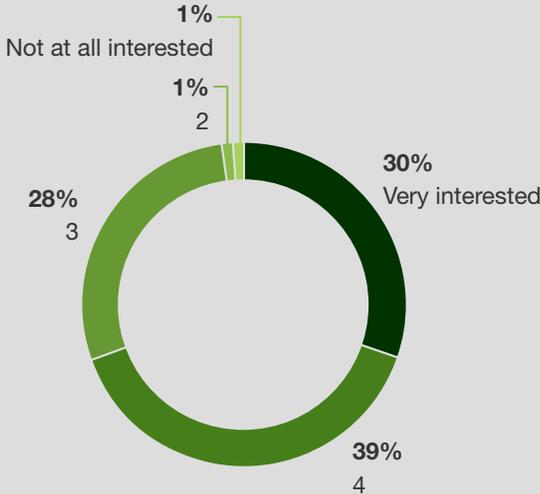
This need for rapid transformation has pushed companies to evolve their requirements for integration and data management. This has allowed organizations to enable their best core competencies, combining them with technologies to reveal a bigger impact for their integration approaches not just on business operations, but also from a strategic perspective: improving customer experience and accelerating innovation time-to-market and participation in new ecosystems or business models.

Companies recognize the opportunistic aspect of integration and are seeking methods to help them overcome the challenges, including:

- › **New integration technology.** When asked about plans to upgrade existing data integration technologies, nearly 80% reported they are currently upgrading or planning to upgrade in the near future to account for digital innovations. Looking at specific technology, 69% of companies show interest in an emerging and more strategic solution that offers both integration (e.g., application, data, EDI, file transfer, API management, and IoT) and data management in a unified, cloud-based platform. Forrester calls this data-platform-as-a-service (dPaaS) (see Figure 4).

Figure 4

“How interested would your company be in using a data-platform-as-a-service (dPaaS) to support your data integration and data management strategy?”



Base: 158 decision makers with responsibility in data integration, and either technology buying decisions or strategic decisions on business transformation
Source: A commissioned study conducted by Forrester Consulting on behalf of Liaison Technologies, an OpenText™ company

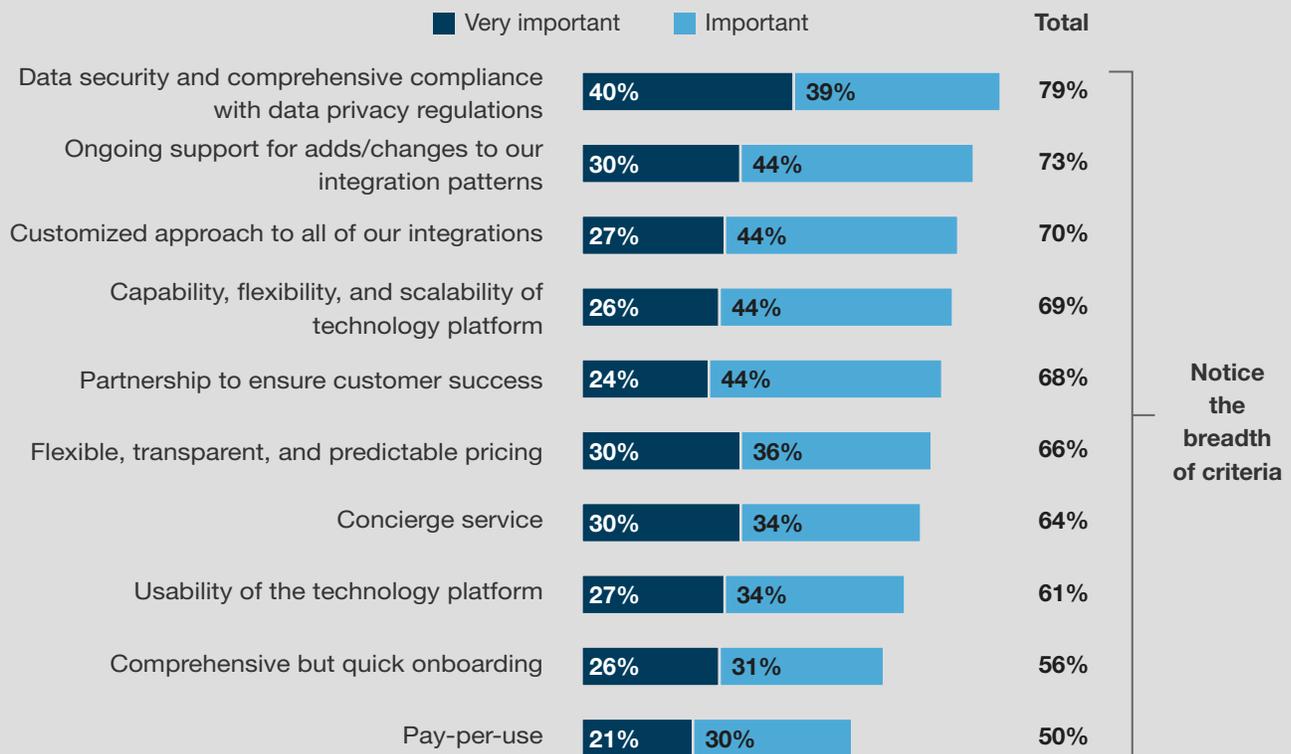


This solution offers both integration and data management in a unified, cloud-based platform and incorporates microservices for agility and scalability.

› **Managed services approaches.** If integration and data management are becoming more strategic, and you have difficulty sourcing skilled resources, it's time to move beyond simple outsourcing or hosted services and consider strategic partnerships like managed services to maintain successful integration over time. For these reasons, 37% of firms are planning to or are interested in taking a managed services approach. More than half already do, but there are important considerations when selecting a managed services provider to develop and maintain all your company's integrations. Decision makers in this study report that the most important criteria are data security and compliance, ongoing support, and a customized approach (see Figure 5).

Figure 5

“How important are the following criteria when considering a managed services provider to develop and maintain all of your company’s integrations?”



Base: 149 decision makers with responsibility in data integration, and either technology buying decisions or strategic decisions on business transformation, and who are interested in, planning to, or currently engaging with a managed services provider for data integration

Source: A commissioned study conducted by Forrester Consulting on behalf of Liaison Technologies, an OpenText™ company

These methods help companies get more value out of the data rather than focusing on the technical implementation and maintenance of integration (see Figure 6). We found that:

- › There's universal (100%) agreement that firms stand to benefit by using a unified, cloud platform for both integration and data management, primarily through an increased ability to focus on data insights rather than on technical aspects, lowering costs, and improving data security and compliance.
- › Ninety-eight percent expect to benefit as a result of taking a managed services approach to integration, mainly by redirecting internal resources to other projects, reducing reliance on developer tools to meet complex integration needs, and reducing time spent finding resources with data integration skills.
- › Scalability and customization are considered the most important capabilities in emerging unified platforms for integration and data management. As data analysts continuously discover new data sources, data integration should be able to support the increase of volume and the continuous evolution of interfaces. A microservice architecture and container-based architecture allows companies to achieve scalability, to support any type of deployment (on-premises, cloud, hybrid, multicloud), and to enable the continuous update of components.



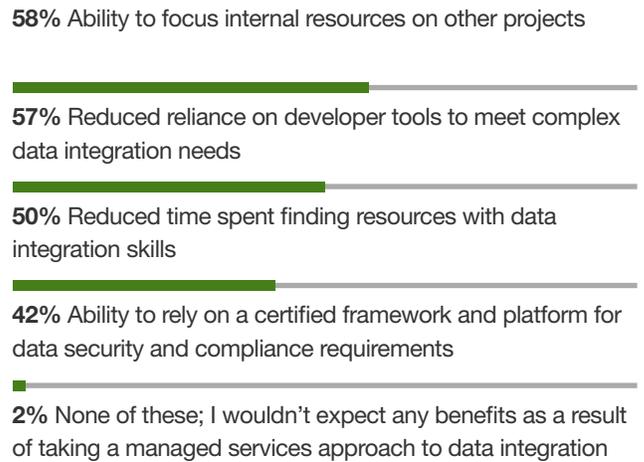
Unified, microservices-based platforms for integration and data management (dPaaS), plus service approaches (managed services), help companies focus their integration on strategic priorities rather than on the technical implementation and maintenance of integration.

Figure 6

dPaaS benefits



Managed services benefits*



Base: 109 decision makers with responsibility in data integration, and either technology buying decisions or strategic decisions on business transformation, and who are interested or very interested in dPaaS to support their data integration and data management strategy

*Base: 149 decision makers with responsibility in data integration, and either technology buying decisions or strategic decisions on business transformation, and who are interested in, planning to, or currently engaging with a managed services provider for data integration

Source: A commissioned study conducted by Forrester Consulting on behalf of Liaison Technologies, an OpenText™ company



Key Recommendations

Integration is becoming a strategic foundation for digital transformation but the challenges of increased complexity and added volatility of data sources cannot be solved by one simple technology solution. As such, companies must pay attention and prepare to execute integration and data management capabilities that support digital transformation right. Forrester's in-depth survey of data integration decision makers yielded several important recommendations:



Establish an integration strategy by documenting the following questions. Is your integration technology a strategic foundation for your digital transformation? What is the role of integration and data management within product innovation, customer experience and operational efficiency/agility? Do you have the right skills and competencies, plus the right agile integration governance and organization, to support lines of business needs for agility? If you answer yes to most of these questions in your integration strategic document, then you are ready for the below recommendations.



Overcome integration complexity by choosing a strategic digital business integration platform. This platform is a comprehensive end-to-end approach that: 1) converges data integration and data management, application integration, B2B integration, and IoT integration into a coherent set of capabilities and 2) reduces the burden of managing an increasing number of connections. This is foundational to the type of digital transformation that prepares a firm to react to an unpredictable future of digital disruption and to get maximum value from its data.

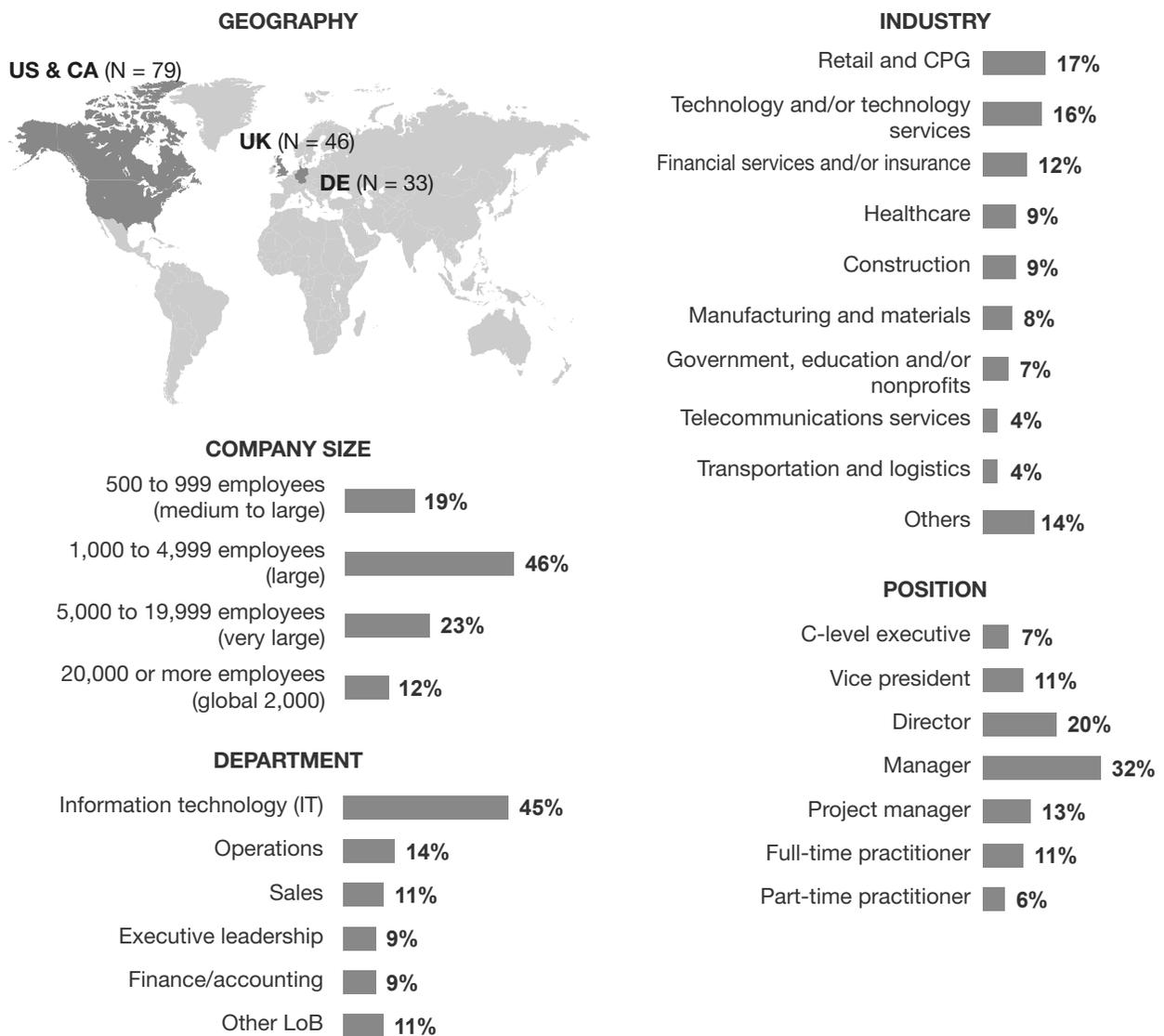


Choose the solutions and vendors that will become a partner in executing that integration strategy. The solution can vary from integration technologies only, cloud or not, services included or not, and getting the right adapted and flexible pricing model. Of course all these requirements are important, but the notion of getting a real strategic and engaged partner for your integration is surely more important than just the technical aspects.

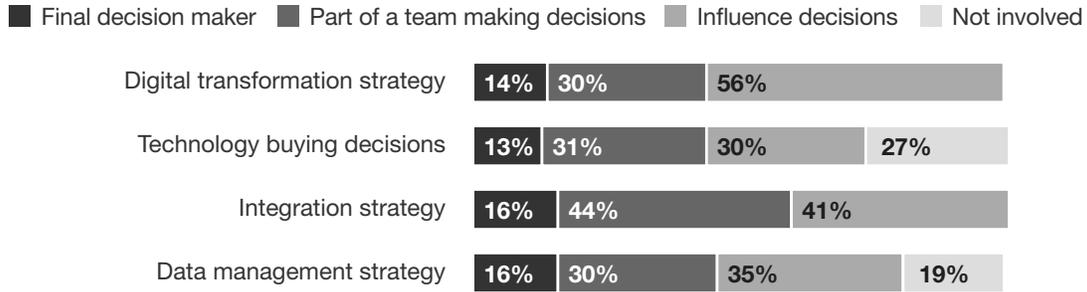
Appendix A: Methodology

In this study, Forrester conducted an online survey of 158 cross-industry organizations in the US, Canada, Germany, and UK to evaluate data integration strategies. Survey participants included decision makers in data integration, and either technology buying decisions or strategic decisions on business transformation. Questions provided to the participants asked about their current integration strategies, challenges they experience, and plans to invest in tools and expertise to overcome those challenges. Respondents were offered incentives as a thank you for time spent on the survey. The study began and was completed in December 2018.

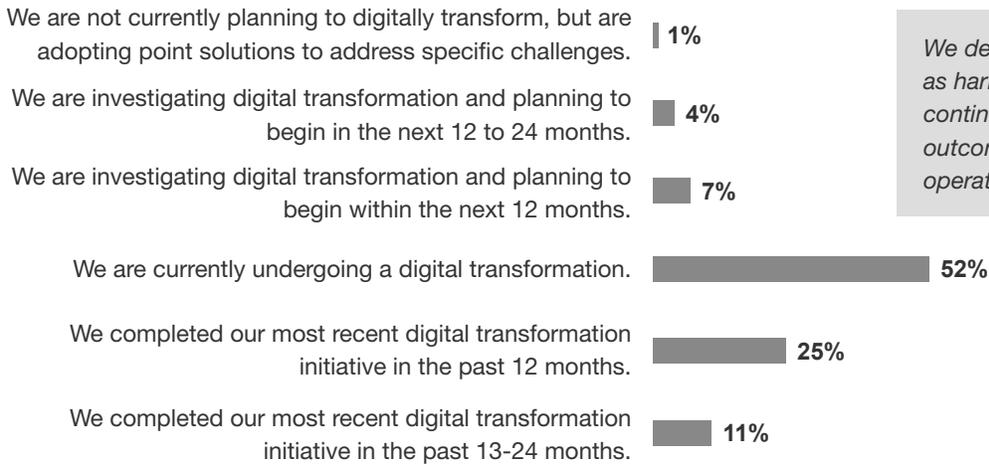
Appendix B: Demographics/Data



RESPONSIBILITIES



COMPANY'S DIGITAL TRANSFORMATION EFFORTS



We define digital transformation as harnessing digital assets to continually improve customer outcomes while increasing operational agility.

Base: 158 decision makers with responsibility/influence in data integration, and either technology buying decisions or strategic decisions on business transformation.

Source: A commissioned study conducted by Forrester Consulting on behalf of Liaison Technologies, an OpenText™ company, December 2018

Appendix C: Endnotes

¹ Source: "Now Tech: Integration Strategy And Delivery Service Providers, Q1 2018," Forrester Research, Inc., March 21, 2018.

² Source: "The Forrester Wave: Strategic iPaaS And Hybrid Integration Platforms, Q1 2019," Forrester Research, Inc., January 3, 2019.

³ Ibid.