SAPinsider

RESEARCH
REPORT

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Enterprise Cloud Deployment

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Executive Summary

INSIDER PERSPECTIVE

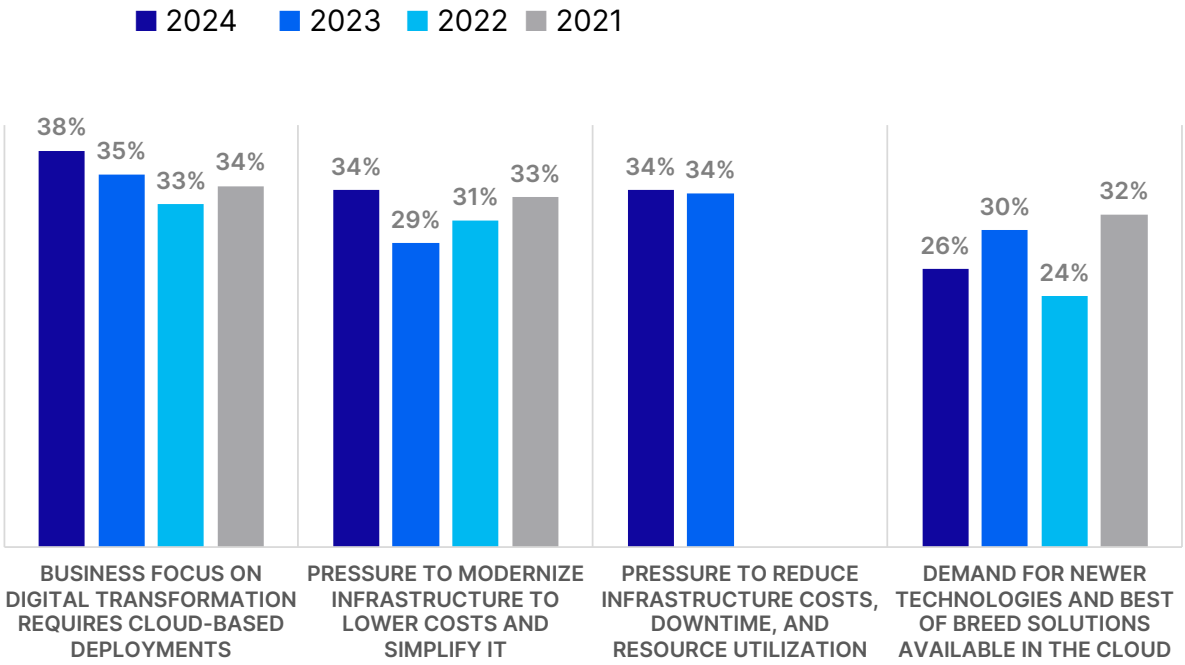
"The biggest benefit that we have experienced from moving SAP workloads to the cloud is that it reduces our responsibility when it comes to factors like hardware support and setting maintenance windows. It is also very easy to scale based on business need, especially if our needs change based on the time of the year."

SAP SOLUTIONS CONSULTANT, PHARMACEUTICAL COMPANY

CLOUD ENVIRONMENTS make up most of the new infrastructure investments for SAP customers. Though this continues to be private cloud environments for some organizations, many are moving towards hyperscalers as a result of SAP's continued push to move customers towards cloud solution. Notably, RISE with SAP's infrastructure offering is now one of the top choices among organizations according to recent SAPinsider research. This is despite the fact that older systems running on local infrastructure still make up a significant proportion of workloads today. What is planned for these workloads is what this report will explore.

SAPinsider surveyed 133 members of its community between April and August 2024 to generate insights on organizational strategies for cloud landscape and cloud transformation. The survey asked the respondents about the factors most responsible for their organization's cloud strategy. For the fourth consecutive year, digital transformation requiring cloud-based deployments is the primary factor responsible for organizations moving to the cloud **(Figure 1)**.

Figure 1: Factors Driving Cloud Deployment Strategy



Cloud-based deployments offer flexibility and scalability needed for digital transformations. Organizations can quickly deploy new systems or environments, and easily shut them down when no longer needed. This allows cloud environments to catalyze change and accelerate the pace of planned transformations. Notably, organizations with annual revenues below $2 billion are much more likely (47%) to focus on digital transformation that requires cloud-based environments than larger organizations (38%). This suggests that the cloud is only one part of the broader transformation plans for larger organizations as they may already have infrastructure or virtualization capabilities in place. However, the flexibility and scalability offered by the cloud is much more important when it comes to the digital transformation plans of smaller organizations.

Although digital transformation is the most important factor affecting cloud strategy, the pressure to lower costs and simplify IT is another significant driving factor. This aligns with the fact that reduced operational costs is one of the top three ways in which organizations plan to measure the success of their cloud initiatives. The focus on modernizing infrastructure while minimizing costs and simplifying landscapes is particularly important for larger organizations (40%) compared to smaller organizations (29%). This makes it the most important factor for large organizations.

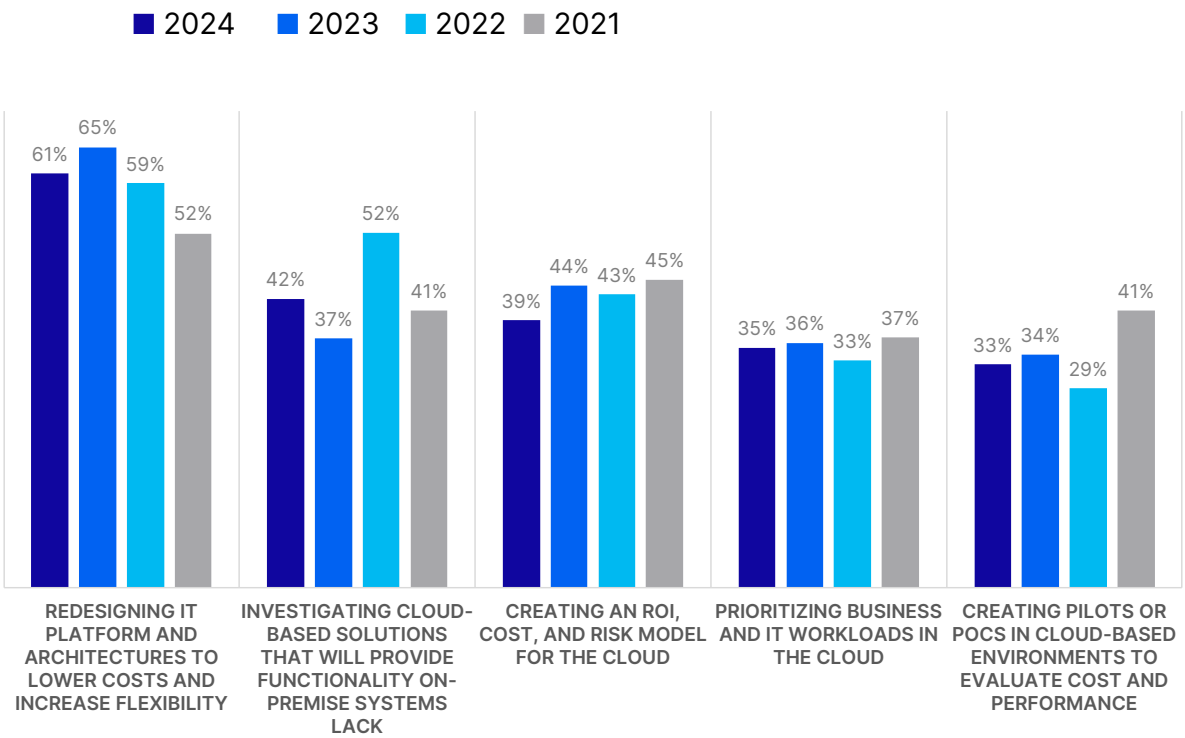
The pressure to lower costs through simplification and modernization is combined with a universal pressure to reduce costs, downtime, and resource utilization. This was important for respondents from large (30%) and small (29%) organizations alike, and highlights the focus on reducing costs and improving resilience for critical enterprise solutions irrespective of organizational size with the cloud as a means to achieve this goal.

A notable difference emerged between the responses of large and small organizations around factors such as the demand for newer technologies and best-of-breed solutions available in the cloud, and the need for a more secure and resilient infrastructure to support a

changing business landscape. Respondents from larger organizations were significantly more focused on cloud-based solutions that offer newer technologies and best of breed solutions (33%) compared to smaller organizations (18%). This is because many larger organizations need to update their legacy infrastructure, unlike smaller organizations with more recent infrastructure investments. On the other hand, smaller organizations are more focused on the cloud providing them with increased security and resilience (23%), while large organizations (18%) may already have more secure and resilient landscapes.

With two of the biggest factors driving cloud deployment strategy being related to cost, it is no surprise that the most important strategy for respondents relates to redesigning IT platforms and architectures to lower costs and increase flexibility **(Figure 2)**. This has been the most important factor for respondents since 2020 and underscores the importance of improving flexibility while managing or reducing costs. However, many organizations do not understand that the costs associated with cloud may not be cheaper than traditional deployments, which is why respondents also focus on creating an ROI, cost, and risk model for the cloud. Those developing or adopting this model need to ensure that analysis is carried out over a multi-year period, as it only after three to five years that it is possible to understand the true cost of different environments.

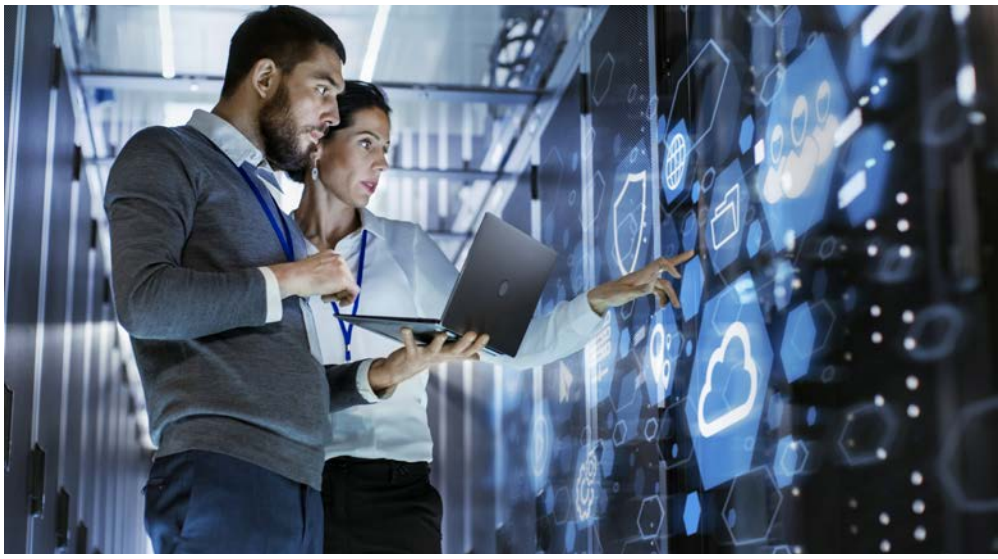
Figure 2: Strategies Most Important to Enterprise Cloud Deployments



INSIDER PERSPECTIVE

"Cloud providers invest heavily in security measures, including data encryption, access controls, and compliance certifications. This can enhance the security posture of SAP systems compared to on-premise deployments. In addition, cloud platforms offer management services and automation tools that simplify the administration of SAP systems, reducing the burden on IT teams."

DEVELOPER, RETAIL COMPANY

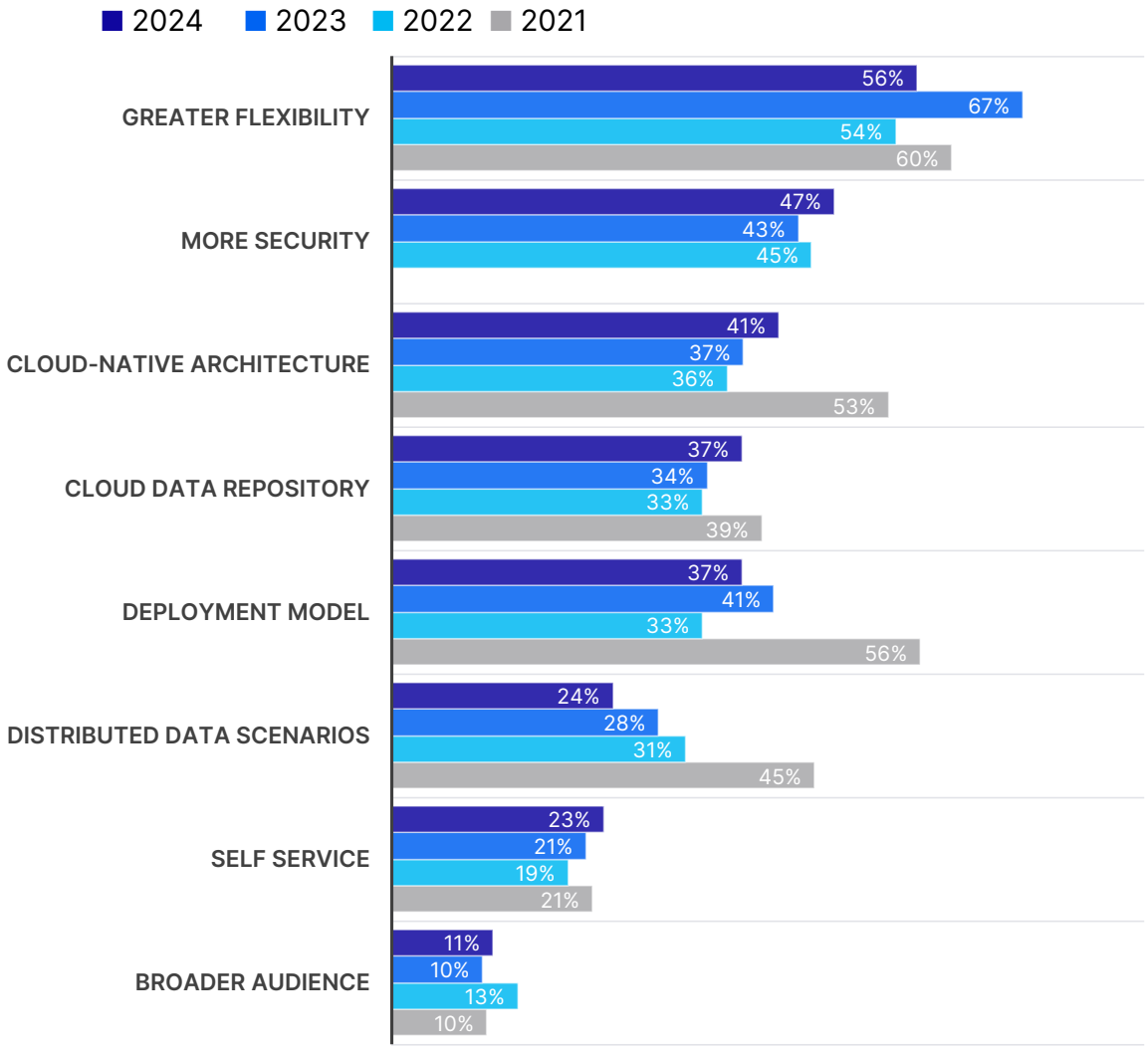


Identifying cloud-based solutions that provide functionalities that on-premise systems lack enables organizations to address the demand for newer technologies and best-of-breed solutions. This was more important for respondents from large organizations (48%) compared to small organizations (36%), much like the demand for newer technologies and best-of-breed solutions. This underscores the premise that large organizations are moving away from legacy solutions due to a lack of support for new compliance needs or a requirement for features that cloud-based solutions provide.

Although prioritizing business and IT workloads in the cloud is a key action supporting enterprise cloud strategies—ranking as the fourth most likely step taken—respondents also emphasized the significance of cost considerations, especially in relation to cloud-based deployments. Since cloud environments allow organizations to rapidly deploy new systems or solutions and deactivate them when not needed, it simplifies proofs of concept creation or pilot deployments, and offers the ability to effectively evaluate the cost and performance of the newly deployed systems.

Just as the factors impacting the move to the cloud have remained largely consistent over the last three years, the same is true for the factors influencing the decision to move SAP workloads to the cloud **(Figure 3)**. Greater flexibility remains the most important factor which cloud infrastructure provides for respondent organizations, and is equally important for both large (55%) and small (56%) organizations. While a relatively generic term, in cloud computing, flexibility provides the ability to adapt to changing business needs without disruption. In an environment where these needs can shift rapidly, having flexibility in managing SAP workloads is crucial.

Figure 3: Factors Influencing the Decision to Move SAP Workloads to the Cloud



Beyond flexibility, increased security is also crucial for respondents. However, larger organizations are far more concerned about having more security (53%) compared to respondents from smaller organizations (38%). What organizations need to understand is that moving to the cloud does not inherently offer increased security. While cloud providers are highly proficient with protecting their infrastructures, they have limited control over customer data and systems. In addition, challenges with utilizing cloud-native security controls are pertinent for organizations operating in hybrid landscapes. Additionally, while the cloud offers increased adoption speed, and improved scalability and flexibility, organizations need to build security from the outset to ensure security of their cloud environments.

Cloud-native architecture, the third biggest factor for both large (42%) and small (38%) organizations, uses cloud services to allow dynamic and agile development techniques. This allows organizations to take a modular approach to building, running, and updating software than

having to rely on traditional monolithic development techniques. While some SAP solutions, such as SAP S/4HANA, are beginning to adopt cloud-native architectures such as microservices and serverless computing, some of the biggest benefits for customers may be in the area of applications that surround more traditional ERP systems. This can include other cloud solutions from SAP and extension applications built on platforms such as SAP Business Technology Platform (BTP).

The cloud deployment model and the need for a cloud data repository represent two equally important factors for organizations planning their move to the cloud. Cloud deployment models offer organizations significant benefits when it comes to determining infrastructure location or who is responsible for managing it. This allows organizations to manage the cost, scalability, security, compliance, and control of their cloud-based solutions and services more efficiently. Although solutions like SAP S/4HANA Cloud are focused on whether the deployments are in the multi- or single-tenant public cloud, other SAP offerings in the cloud may provide different benefits.

Many organizations are implementing cloud data repositories as these provide the ability to bring together data from across the organization in a single, centralized data store. This allows them to better manage data quality and integrity, ensure regulatory compliance, and effectively scale as data storage needs increase. Cloud data repositories are also beneficial for organizations looking to leverage external data, like trend or weather data, to enhance the value of their reporting, or for organizations that are planning to use AI.

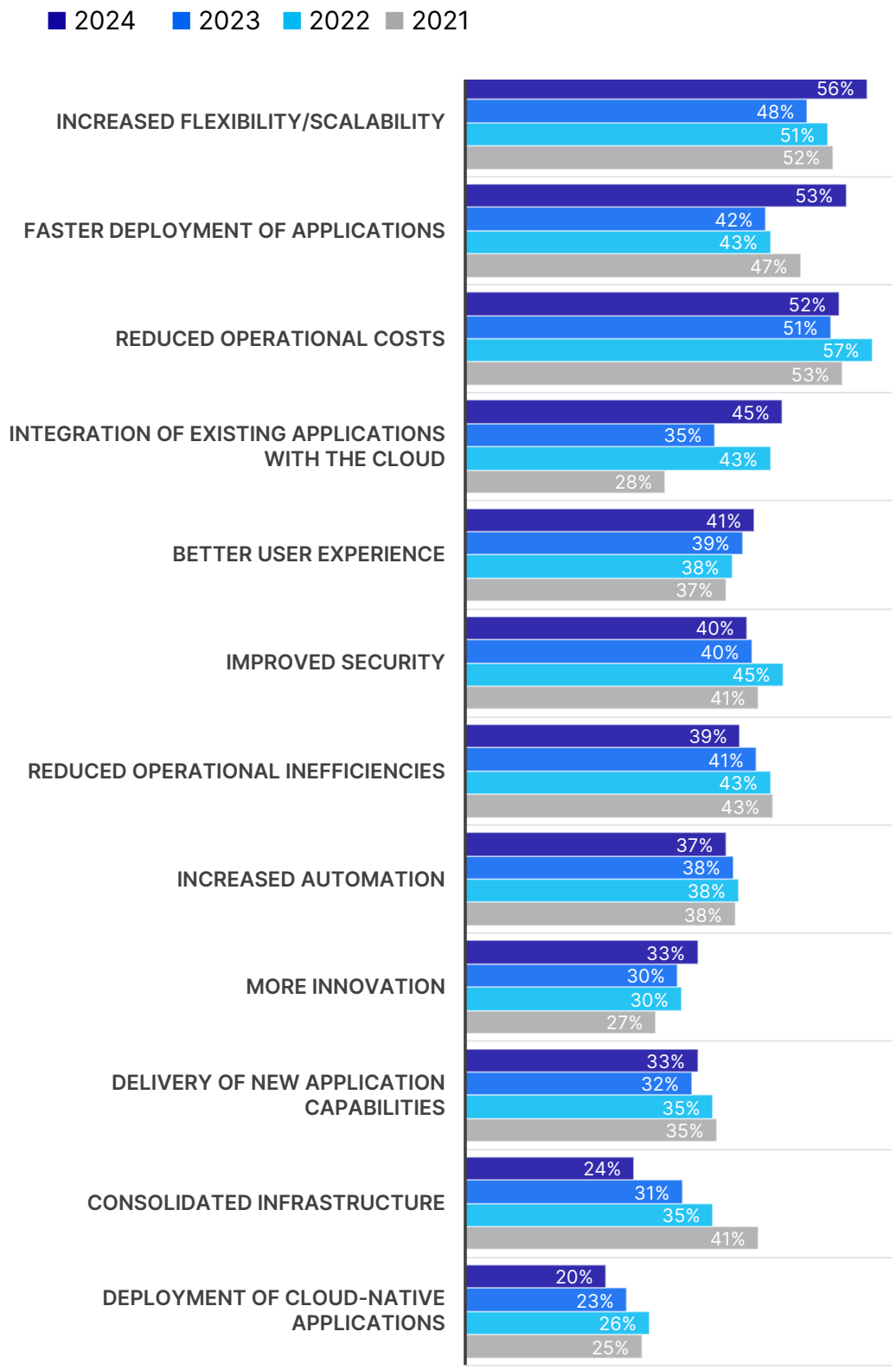
Although the cloud offers many benefits, organizations must ensure that they understand how they will measure the success of their cloud initiatives. This is why it is vital to establish measurement criteria before undertaking new cloud deployments. Last year's top criterion was reduced operational costs, however, this year, increased flexibility and scalability and faster deployment of applications were both slightly more important **(Figure 4)**. Although the top three criteria were the same for organizations of all sizes, large organizations placed greater emphasis on reduced operational costs (53%) compared to smaller organizations (49%), making it their second most important measurement factor. Meanwhile, smaller organizations placed a greater emphasis on faster deployment of applications (56%) than larger organizations (50%).

INSIDER PERSPECTIVE

"For us, the biggest benefit of moving to the cloud is the ability to be agile and innovate at scale while improving the security of our systems. We also see changes in accessibility, standardization of data and fields in cloud-based applications, and a simplified user interface for these solutions."

FINANCE MANAGER, HEALTHCARE COMPANY

Figure 4: Criteria for Measuring the Success of Cloud Initiatives



More differences were observed outside the top three measurement criteria. Large organizations emphasized reduced operational inefficiencies (45%), better user experience (45%), and more innovation (43%) as their next most important criteria for measuring success. Smaller organizations planned to measure integration of existing applications with the cloud (49%), improved security (42%), and better user experience (36%). This reflects that large organizations have bigger, complex landscapes that are more challenging to run, while smaller organizations are more focused on integrating their existing solutions and improving their security.

This year's survey also revealed other trends, including:

- The most important factors for selecting a cloud service provider were security (75%), price (61%), compliance (46%), partnership or relationship with SAP (41%), and customer service or the service level agreement (34%). The emphasis on security and cost continues to reflect the biggest factors driving cloud deployment strategy.
- Security and compliance topics emphasized by organizations moving to the cloud include identity and access management (63%), data privacy (59%), regulatory compliance (55%), and backup and disaster recovery (54%). These focus on ensuring effective data protection and compliance in cloud deployments.
- While global system integrators (45%) remain the most likely type of implementation partner used to support cloud deployments, respondents are also likely to use implementation partners that specialize in cloud deployments (35%), their usual implementation partner (33%), or a data integration solution provider (29%).

Required Actions

Based on the survey responses, organizations should consider the following when making their plans for data, integration, and platforms:

- **Dedicate time to understanding how cloud-based deployments can facilitate plans for digital transformation.** Digital transformation is about more than just deploying updated systems and software. True transformation is about using digital technologies to update and change business processes, culture, and customer experiences to meet changing market needs. Moving solutions to the cloud facilitates digital transformation as it brings together data and information from across the organization and allows it to be accessed from the same place. Cloud applications will help with modernization, but they will not facilitate transformation if sufficient time is not dedicated to planning and architecting this move.
- **Map out security responsibilities for cloud deployments and ensure that security is embedded in cloud planning from the start of the process.** Cloud infrastructure is incredibly well protected by cloud service providers. However, users still need to understand their shared responsibilities. While this starts with access control, it may extend to other areas depending on the environment being used. This is why it is vital to include security from the start of any cloud deployment planning. This not only prevents delays later in the deployment when security gaps are discovered, it ensures that the overall deployment is more successful.
- **Set up a program that will evaluate, measure, and monitor the cost and benefits of cloud deployments and ensure that it has sufficient scope**. Compared to an on-premise, traditionally licensed enterprise software deployment, transitioning to the cloud can often seem significantly cheaper when compared to the benefits it provides like flexibility, scalability, and the ability to start or shut down processes, servers, and devices as needed. However, costs can accumulate quickly if there is no oversight of cloud-based services, for example, when pilot or test servers run unintentionally, or when new requirements are added to projects. These can result in escalated costs that only increase over time. Thus, it is crucial for organizations to put in place governance measures which ensure that costs do not escalate rapidly, and organizations can realize an appropriate return on their investments from cloud services.

DART MODEL FRAMEWORK

ENTERPRISE CLOUD DEPLOYMENT

DRIVERS

- Business focus on digital transformation requires cloud-based deployments (38%)
- Pressure to modernize infrastructure to lower costs and simplify IT (34%)
- Pressure to reduce infrastructure costs, downtime, and resource utilization (34%)

ACTIONS

- Redesigning IT platform and architectures to lower costs and increase flexibility (61%)
- Investigating cloud-based solutions that will provide functionality on-premise systems lack (42%)
- Creating an ROI, cost, and risk model for the cloud (39%)
- Prioritizing business and IT workloads in the cloud (35%)
- Creating pilots or PoCs in cloud-based environments to evaluate cost and performance (33%)

REQUIREMENTS

- Data storage and protection requirements (83%)
- Ability to scale flexibly and quickly (77%)
- Strong SLAs with cloud partners (76%)
- Strategy for integrating cloud-based applications (75%)
- Plan for cloud-based data encryption and protection (75%)

TECHNOLOGIES

- Encrypted/secure connectivity (53%)
- Cloud database and data services (47%)
- Cloud backup and recovery (46%)
- Dedicated connections to cloud providers (43%)
- Virtualization and hyper-converged infrastructure (40%)
- Cloud development tools (39%)
- Data encryption tools (39%)
- Cloud data lakes (33%)
- Learning services (31%)
- Sustainability monitoring tools (23%)
- Cloud AI and machine learning (18%)

Appendix: The Dart™ Methodology

SAPinsider has rewritten the rules of research to provide actionable deliverables from its fact-based approach. The DART methodology serves as the very foundation on which SAPinsider educates end users to act, creates market awareness, drives demand, empowers sales forces, and validates return on investments. It is no wonder that organizations worldwide turn to SAPinsider for research with results.

The DART methodology provides practical insights, including:

DRIVERS	These are macro-level events that are affecting an organization. They can be both external and internal, and they require the implementation of strategic plans, people, processes, and systems.
ACTIONS	These are strategies that companies can implement to address the effects of drivers on the business. These are the integration of people, processes, and technology. These should be business-based actions first, but they should fully leverage technology-enabled solutions to be relevant for our focus.
REQUIREMENTS	These are business and process-level requirements that support the strategies. These tend to be end-to-end for a business process.
TECHNOLOGY	These are technology and systems-related requirements that enable the business requirements and support the company's overall strategies. The requirements must consider the current technology architecture and provide for the adoption of new and innovative technology-enabled capabilities.

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