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GETTING THE BEST OUTCOMES FROM YOUR TRANSITION TO SAP S/4HANA IN THE CLOUD

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In this report, we'll analyze the challenges organizations face in moving enterprise applications such as SAP S/4HANA to the Cloud and how leading organizations are effectively making this migration.

For businesses that have been holding off on moving their applications to the Cloud, there has never been a better time to overcome their hesitations and make the jump, given the clear benefits in flexibility, resilience and control that it offers. This is especially true for critical enterprise applications; for example, core ERP solutions such as SAP S/4HANA, which is ending support for non-SAP workloads in 2027.

But some organizations have hesitated to make the move to the Cloud with these platforms due to concerns about security, scalability, and the complexity of making the migration. Increasingly, they have come to the realization that hosting critical applications like SAP S/4HANA in the Cloud isn't just possible — it's actually the best way to run them.

It still remains though that businesses are holding off on this move, unsure of how to migrate and transition, which clouds to use, and how to ensure that they get the biggest benefits.

Aberdeen research has found that when organizations move critical applications like SAP S/4HANA to the Cloud, they see significant gains in performance, management simplicity and improved security.
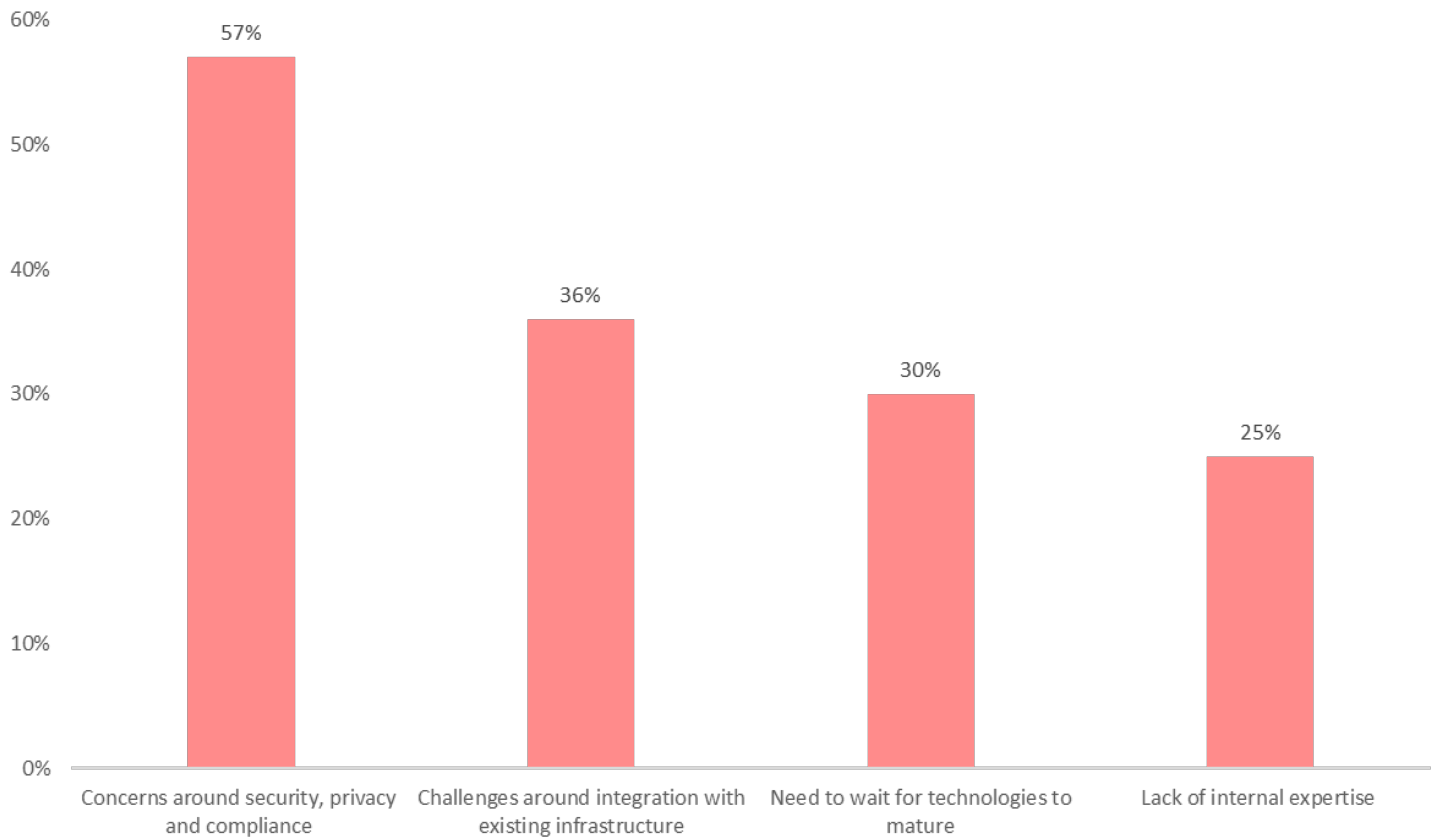
In this report, we'll look at:

▶ The challenges in transitioning to SAP S/4 HANA on the Cloud from SAP ECC or legacy SAP ERP on-premises.

▶ How leading businesses utilize a thought-out migration plan from developing a strategy to optimization and improved management.

▶ How successful businesses are able to overcome challenges and complexity while transitioning to SAP S/4 HANA and realize key benefits of innovating and modernization that are possible with cloud-based SAP S/4HANA.

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How Myths, Misconceptions, and Doubt Put Hurdles in the Way of SAP S/4HANA Cloud Migration

The rise of private and hybrid cloud has intertwined cloud with traditional on-premises systems and applications as a ubiquitous and essential element of modern IT infrastructures. But many businesses still face (or believe they face) critical challenges when it comes to moving applications to the Cloud, especially critical solutions like SAP S/4HANA.

In our research into what organizations see as the top challenges to a successful cloud migration, many of the classic misconceptions and myths were found (Figure 1). It's no surprise that concerns about security, privacy, and compliance were at the top (57%). However, Aberdeen (and most other) research has proven that when critical applications like SAP S/4HANA are in the Cloud, businesses see improvements in security and compliance.

Figure 1: Top Challenges Migrating Enterprise Applications to the Cloud

Source: Aberdeen, January 2020   n=96

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Among these top challenges there are several other concerns that have influenced the reluctance of adopting cloud infrastructure and the decision to maintain workloads on-premises.

▶ **Integration challenges:** 36% of organizations are concerned about integration with other elements of their existing infrastructure. Businesses place great importance on ensuring that any solution they implement will integrate with the rest of their infrastructure. Therefore, they are less inclined to adopt new environments until they are confident the integration will be seamless.

▶ **Lack of expertise:** Organizations are greatly challenged by a lack of expertise in emerging technologies, which — with the rapid rise of cloud innovation and the growing use of hybrid cloud and Kubernetes — is not only understandable but plays into their concern about waiting for technologies to mature.

▶ **Forfeiting existing investments:** Many organizations have invested substantially in running, maintaining and managing their traditional SAP workloads on-premises. While they understand that on-premises environments may be a barrier to innovation, they are more concerned that these existing investments will go to waste.

It is true that migration is hard, there is no easy button to push to make it happen. So, while these concerns are valid, it is more an issue of lack of knowledge rather than actual technological or process hurdles to overcome. But, with the right strategy in place, the process can be accomplished seamlessly. When it comes to moving SAP workloads to the Cloud and taking advantage of cloud-optimized systems like S/4HANA, there are strategies that top businesses are deploying to ensure a successful migration.
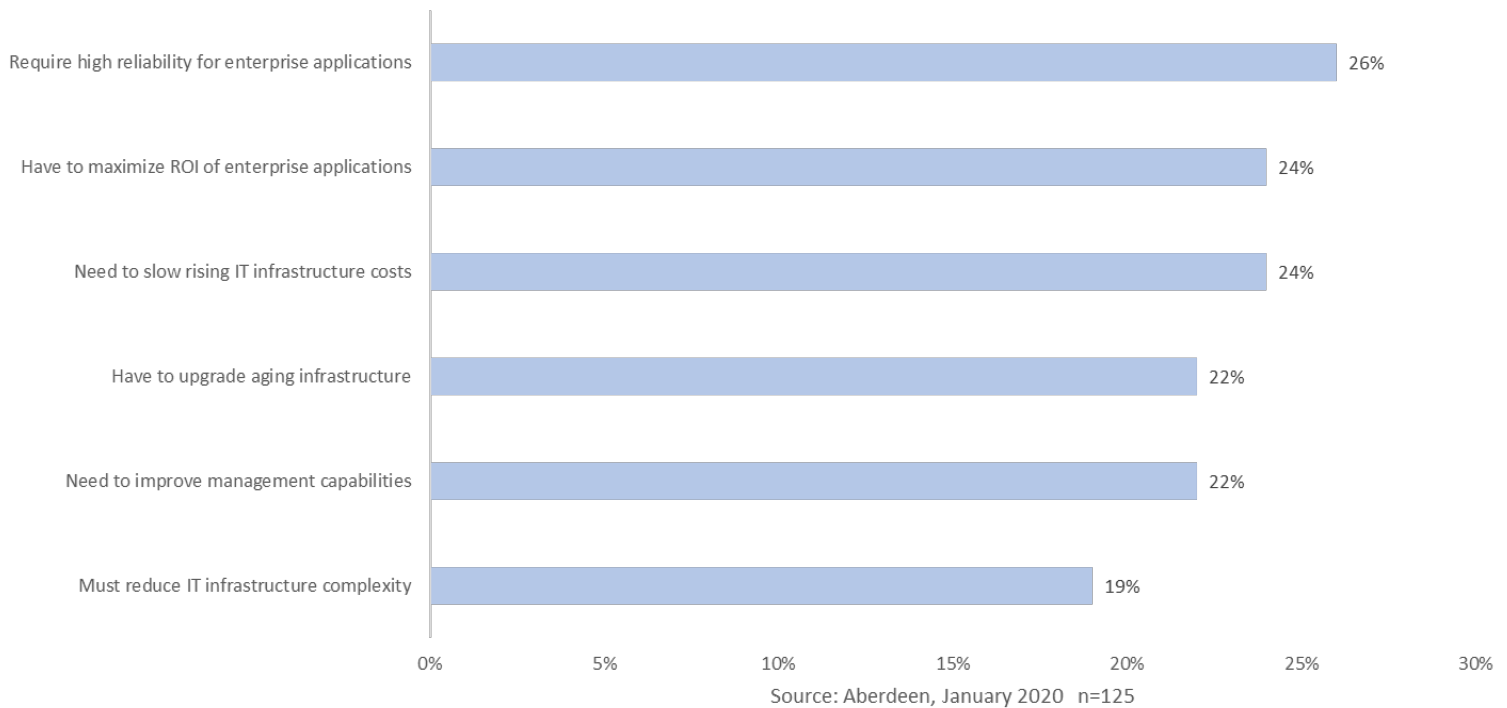
Why Leading Organizations Are Optimizing Infrastructure and Moving Critical Applications to the Cloud

Businesses today understand that moving enterprise applications to the Cloud can not only lead to direct benefits in lower costs and increased flexibility, but can also improve their ability to transform and innovate across their infrastructure. When it comes to the drivers that are pushing these organizations to optimize and improve the way that they run SAP workloads and leading to a transition to S/4HANA, they are looking to gain advantages and increased capabilities in a number of key areas.

Top reasons organizations are migrating to the Cloud

To find out what the top drivers are for making the move to SAP S/4HANA in the Cloud, we surveyed businesses to see what pressures were top-of-mind when making these decisions. Topping this list was the need for high reliability (26%), which makes sense as this is one of the key benefits of a cloud migration.

Figure 2: Top Pressures to Migrate Enterprise Applications

Source: Aberdeen, January 2020 n=125

We also see costs as a top pressure for these businesses, as they need to slow infrastructure costs (24%) while boosting the ROI (24%) of their investment in SAP systems. This is another key area of focus, as many organizations find that their older deployments of SAP platforms are actually holding them back and reducing their ROI, which plays into their desire to upgrade from an aging infrastructure.

These leading businesses are looking for a way to improve their management of SAP workloads while reducing complexity (22%). As we've seen, these organizations are already challenged by a lack of skillsets and high complexity, so when they set out to transition to SAP

S/4HANA in the Cloud, they need to ensure that they see improvements in these areas.
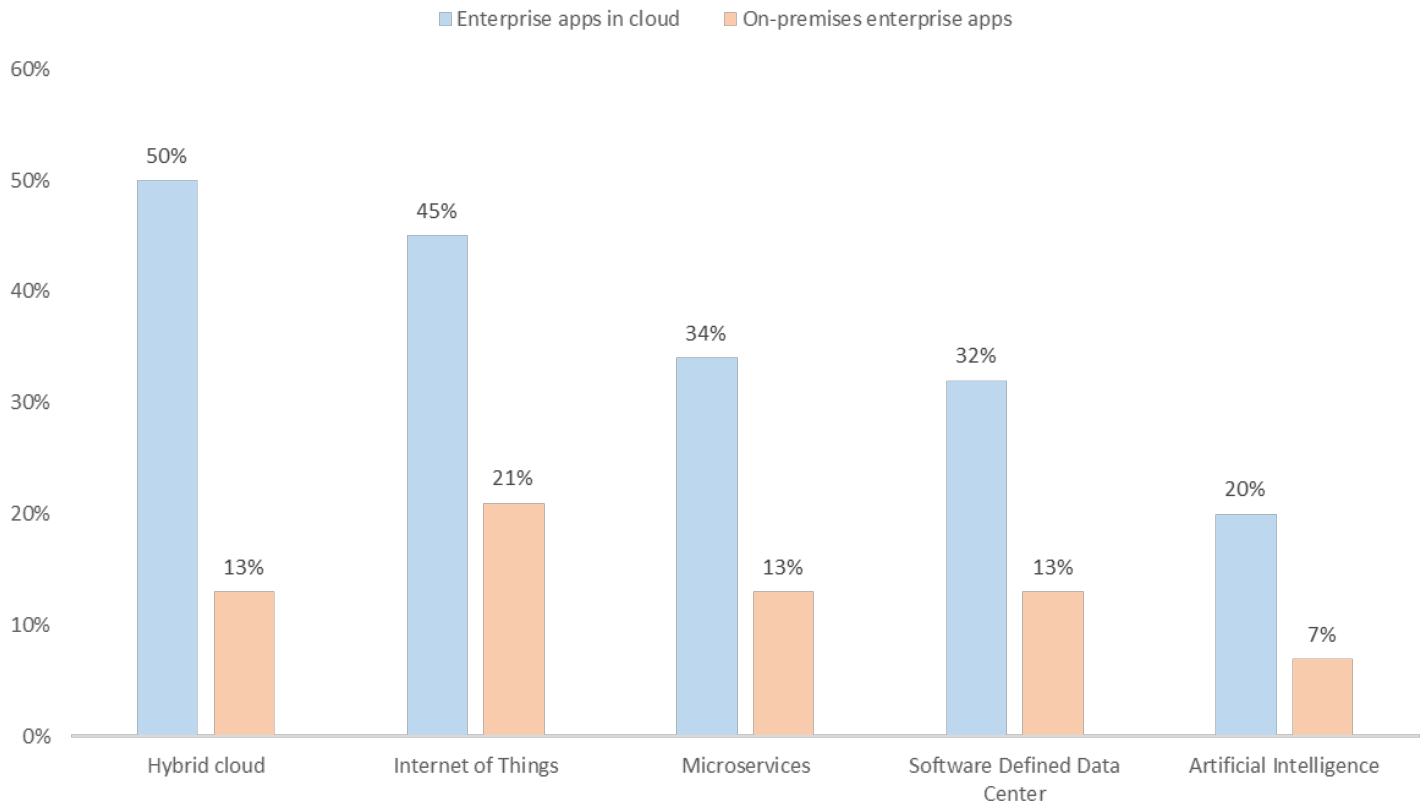
Migration success equals greater innovation and a competitive advantage

There are multiple ways to look at success when it comes to something like migrating to SAP S/4HANA in the Cloud. One can analyze metrics on reliability and performance, or even ask direct questions about satisfaction with a deployment. But another way to understand if something makes a company more agile, more competitive, and more successful, is to see if they are innovating in other areas.

When Aberdeen analyzed our data to see if businesses who had migrated enterprise applications to the Cloud were more innovative than their peers who had yet to make this move, we saw a significant difference. Across the board, businesses that put applications like SAP S/4HANA in the Cloud are deploying new technologies at twice or more the rate of their competitors.

In Figure 3, we see that these organizations are 4x more likely to have adopted hybrid cloud, meaning that they are looking to get the most out of both their cloud and on-premises investments. These businesses are 3x more likely to be developing applications with containers and microservices — therefore, they are focused on cloud-native solutions and building cutting-edge applications that require systems like SAP S/4HANA to also be in the Cloud. Moreover, these innovative leaders are 3x more likely to take advantage of artificial intelligence.

Figure 3: Getting Enterprise Applications to the Cloud Eases Innovation

Legend: Enterprise apps in cloud ■ On-premises enterprise apps ■

Category	Enterprise apps in cloud	On-premises enterprise apps
Hybrid cloud	50%	13%
Internet of Things	45%	21%
Microservices	34%	13%
Software Defined Data Center	32%	13%
Artificial Intelligence	20%	7%

Source: Aberdeen, January 2020 n=222

Looking at this data, we see that transitioning to SAP S/4HANA in the Cloud doesn't happen in a vacuum — it carries over to other areas of the organization. By giving an enterprise application the benefits of integration and flexibility that come with being cloud-enabled, it increases the ability of these businesses to innovate in other areas.

Aberdeen has consistently found throughout our research that leveraging new technologies provides greater benefits to businesses beyond simply having what's new and exciting. Organizations that are leaders in IT infrastructure excellence consistently innovate and deploy emerging technologies at a much higher rate than other businesses, giving them a competitive edge while improving all areas of their business.

What to Look for When Migrating SAP S/4HANA to the Cloud

When it comes to effectively running critical enterprise applications on the Cloud, not all cloud solutions are the same. Leaders look for clouds that are open, can easily integrate with other key technologies, and are ready for emerging innovations like AI.

Key criteria used for selecting solutions and infrastructure

In our research, we asked businesses to rank the top criteria that they use when selecting the solutions and infrastructure that will run, manage, and optimize their migration of enterprise applications to the Cloud. At the top of these criteria were:

▶ **Ability to grow to meet future needs –** Most of all, these organizations want a solution that is future-proof. We've seen how an effective migration of applications like SAP S/4HANA leads to increased use of new technologies. Leading businesses want to ensure this innovation continues and that their infrastructure is agile enough to take advantage of new changes and improvements.

▶ **Ability to integrate with existing infrastructure** – Earlier we noted that lack of integration is a top challenge for businesses, so it's no surprise that it is also a top criteria when choosing solutions for an SAP S/4HANA migration. Technologies today rely on open solutions that are designed to integrate seamlessly, and they need their critical enterprise applications to have similar open and easy integration capabilities.

▶ **Ability to scale to meet changing demands –** This seems fairly obvious, as flexible scalability is one of the key advantages of any cloud-based application. But some organizations find that when they migrate an application to the Cloud, if they choose the wrong providers or technology solutions, the scalability isn't as easy, or cost effective as they expected. That's why leading organizations focus on ensuring that the partners they choose for an SAP S/4HANA cloud migration can deliver they highest levels of scalability that they can easily manage and optimize.

These aren't just the top criteria of businesses that are moving enterprise applications to the Cloud, they also correlate closely to the vital criteria that leading organizations follow. Looking at the leaders in our research data - defined by Aberdeen as businesses that are in the top 30% of

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success metrics of performance such as reliability and performance of enterprise applications - we found that these leaders were more likely to have innovated and taken key steps such as transitioning to SAP S/4HANA in the Cloud.

Choosing the Right Partner to Ensure Future Growth

While businesses are concerned about optimizing their current investments, they are also focused on ensuring their growth in the future — choosing solutions that can get them where they're going. Leaders look for partners who can provide all of the services and options needed from a hardware and software perspective to the services needed to successfully migrate and manage their environments.

When it comes to the criticality of certain enterprise applications, it's hard to find anything that can be more essential than ERP systems like SAP S/4HANA, which is essential to the operations of many businesses and one where any disruption or downtime can be costly and damaging.

It's no surprise that businesses are concerned about migrations or changes to SAP S/4HANA. They have invested much time and resources into customizations and integrations and starting over from scratch is not an option.

Also, organizations with traditional SAP systems are often challenged by heterogenous infrastructures that can consist of Power systems, Intel based x86 servers, and VMware and other virtualization systems. Faced with this complexity and the challenges that come with it, businesses need to ensure that their partners and cloud providers have the experience and capabilities in place to ease their transition to S4/HANA.

However, by choosing the right cloud partners and by embracing "lift and shift" strategies for moving enterprise applications to the Cloud, leading organizations are successfully overcoming challenges. Implemented the right way, a lift and shift of an enterprise application like SAP S/4HANA lets businesses migrate the application to the Cloud without changing any existing customizations or integration investments in the platform.

We've also found that having a solid migration plan in place can reduce complexity and costs, and lead to a smooth transition to SAP S/4HANA. For example, businesses should:

- ▶ Define a clear strategy for the transition to SAP S/4HANA, working with trusted and experienced partners to discover and identify the best path to migration.

- ▶ Carry out workload migrations before transitioning in order to ease the move to S/4HANA.

- ▶ Deploy the transition from traditional SAP systems, such as ECC, to S/4HANA, building workloads and ensuring the successful transition of existing workloads.

- ▶ Optimize and improve your SAP S/4HANA continuously to boost resilience and ensure high business continuity.

Once the migration is complete, these leading businesses can take advantage of the many perks of running SAP S/4HANA in the Cloud. Aberdeen research has shown that Best-in-Class organizations in IT performance, reliability, and efficiency are 66% more likely to run critical enterprise applications in the Cloud when compared to followers.

With enterprise applications migrated to the Cloud, businesses are 30% more likely to report improvements in security and 33% more likely to see faster application performance. They also report decreased IT infrastructure complexity.

These are key benefits that organizations in enterprise applications achieve. Any business can see important gains and reach vital goals by effectively moving applications like SAP S/4HANA to the Cloud.

Gaining Critical Benefits by Migrating Enterprise Applications to the Cloud

We've seen how businesses that migrate enterprise applications like SAP S/4HANA to the cloud gain increased competitiveness — especially in their ability to more effectively take advantage of new technologies and innovations.

But these aren't the only key benefits gained by running critical enterprise applications like SAP S/4HANA to the Cloud. In Table 1, we identify a number of other benefits that help organizations increase agility, reduce costs, and become leaders in IT infrastructure.

Table 1: Gaining Key Benefits by Migrating Enterprise Applications to the Cloud

Businesses that effectively migrate enterprise applications such as SAP S/4HANA to the Cloud are:

45%	more likely to report increased agility and flexibility for critical applications
36%	more likely to see reduced IT CapEx
30%	more likely to reduce downtime
28%	more likely to have lowered overall IT costs

With critical enterprise applications like SAP S/4HANA in the Cloud and increased ability to leverage the benefits of public, private, and hybrid clouds, these businesses see greater application agility and flexibility in their applications. And with the improved scalability and redundancy of the Cloud available to them, these organizations also see less downtime for critical systems like SAP S/4HANA.

These businesses not only see these benefits, they also avoid the costs that come with not making this move. As we've seen in this report, avoiding the Cloud can lead to higher IT costs (in areas like software renewal and expirations) and increased capital expenditures. Organizations not on the Cloud also find that they have less flexibility, limited ability to innovate, and spend more time and resources trying to overcome management complexities and infrastructure limitations.

Key Takeaways and Future Trends

The benefits and advantages of migrating enterprise applications such as SAP S/4HANA to the Cloud are readily apparent. Businesses who undertake this move effectively know that many of the myths and misconceptions about migrating enterprise applications to the Cloud aren't just wrong — they are often the exact opposite of the truth.

The truth is that, by running enterprise applications like SAP S/4HANA in the Cloud, organizations achieve greater flexibility, improved integration and agility, and reduced costs and demand for IT. To see these important benefits for your business, consider these key recommendations:

▶ **Don't Get Caught Up in Cloud Myths and Misconceptions** – Any business that lets myths keep them from running applications like SAP S/4HANA in the Cloud is reducing their own ability to grow. Organizations that are leaders in enterprise applications optimize these critical applications and see higher performance and improved security for platforms like SAP S/4HANA.

▶ **Pick the Right Partners and Migrate Effectively** – Leading organizations work with partners that not only understand future technologies and innovations like AI and microservices, but also have the expertise and systems in place to enable a successful transition to S/4HANA. They utilize solutions that enable them to lift and shift SAP S/4HANA to the Cloud with the least amount of cost, delay, and complexity. These organizations can quickly gain the benefits of the Cloud without starting from scratch.

▶ **Build a Unified and Holistic Plan** – Leading businesses work to understand the current state of their IT infrastructure and SAP workloads in order to better plan for their goals. They define their needs, carry out workload migrations, and optimize and ease the transition to S/4HANA. With this plan in place, they can work with their Cloud provider to implement the right steps to ensure that their transition to SAP S/4HANA is a trouble-free as possible.

▶ **Ensure Strong Integration** – Focusing on integration with all aspects of the IT infrastructure is critical for migrating enterprise applications such as SAP S/4HANA to the Cloud.

▶ **Be Future Proof** – Emerging technologies are continuously challenging today's organizations and bring additional complexities to IT. Businesses that run critical applications like

SAP S/4HANA on clouds and infrastructures that are designed for the future will not only be able to overcome these challenges, but will be able to gain key advantages over competitors.

An effective migration of enterprise applications like SAP S/4HANA to the Cloud is one of those IT investments that can pay off immediately but also provide key benefits in the future. As IT systems become more agile and software-defined, businesses will need their core enterprise systems to become a driver of innovation, rather than a hurdle that needs to be overcome.

As businesses move to this future of increased importance of technologies like AI, Kubernetes, and rapid application changes, those that have moved on from legacy systems and migrated critical applications like SAP S/4HANA to the Cloud will be well placed to succeed.

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