LTIMindtree

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SAP Competency

Maximize the Value of Your SAP® Investments by Moving to Amazon Web Services (AWS)

SAP® is an enterprise technology platform that powers critical business process for many global organizations. However, in a digitally connected world, enterprise applications need to be flexible and scalable to meet the demands of a dynamically changing business environment. The significant fluctuations in SAP® demand and the need for rapid scaling make the on-premise infrastructure sized for peak demand option economically unviable.

With the need for agility, speed and cost reduction, the cloud is now a compelling choice for organizations looking to optimize their SAP® workloads. The cloud has changed the economics of buying and deploying a technology solution. Rather than investing upfront and buying servers with the constant worry that infrastructure may fail to keep up with the demand, organizations are now proactively transitioning their workloads to the cloud at an accelerated pace. Further supporting this trend, Gartner has predicted that 80% of enterprises will no longer use traditional data centers by 2025. With more and more organization understanding the value of cloud vs. on-premises, many organizations plan to deploy SAP® S/4HANA in the cloud.
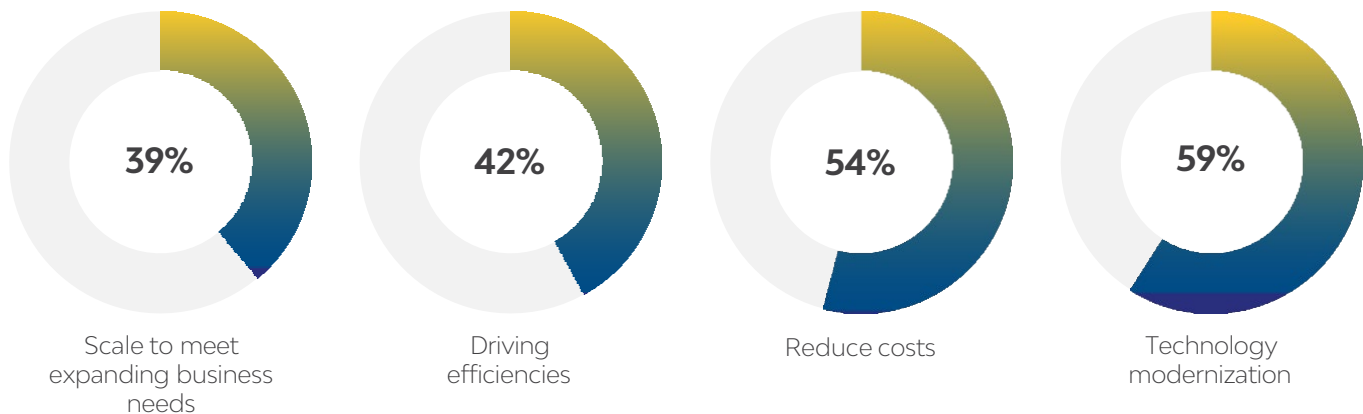
Organizations can no longer justify the time and money spent in maintaining and constantly configuring hardware and infrastructure on-premises when deploying to the cloud can provide the same or better scaling, performance, and resilience at a fraction of the cost. Another compelling reason to consider the cloud for hosting SAP® workloads, is that SAP® has extended support for current ECC systems till 2027 (or 2030 with 2% extra fees). As most enterprises have SAP® as their core ERP system, and depend on SAP® for executing their day to day business operations, it is critical that enterprises are prepared better to leverage the innovations available to them as they transition from SAP® ECC to SAP® S/4HANA.
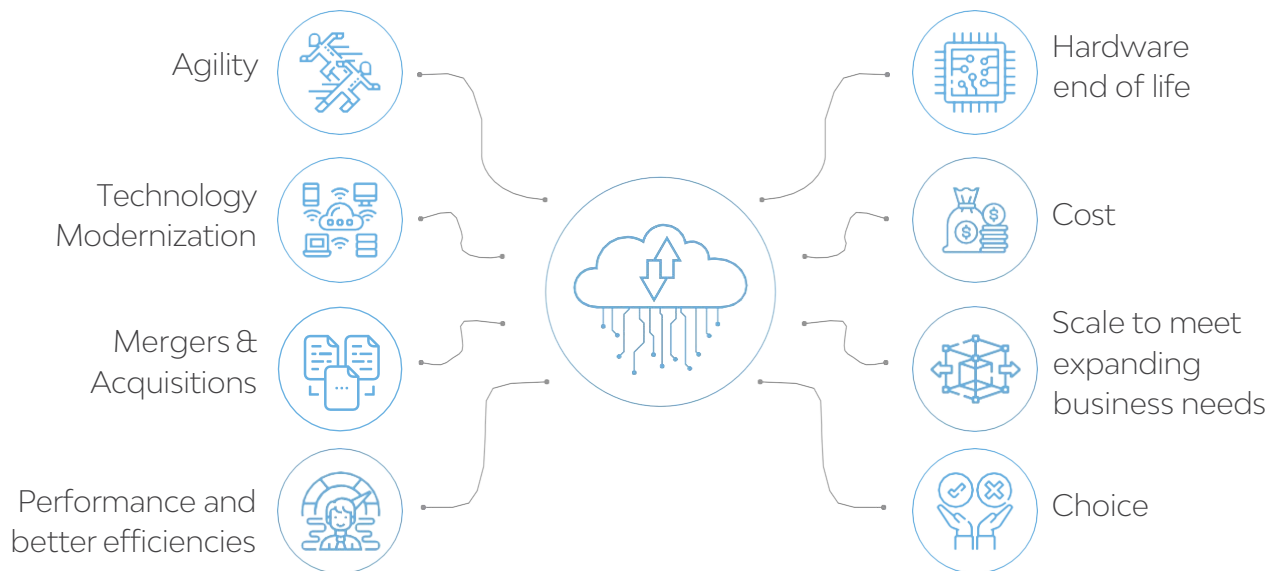
Key growth drivers for migrating SAP® to a cloud infrastructure

Compelling reasons for moving to the cloud are cited in an independent research commissioned by LTIMindtree and conducted by Gatepoint Research, and are depicted in the figure below:

Primary reasons for moving SAP® applications to the cloud

39%
Scale to meet expanding business needs

42%
Driving efficiencies

54%
Reduce costs

59%
Technology modernization

Key factors that are influencing organizations to move to the cloud include

Agility

Technology Modernization

Mergers & Acquisitions

Performance and better efficiencies

Hardware end of life

Cost

Scale to meet expanding business needs

Choice

- **Agility:** The biggest benefit is the time saved due to the reduced time for configuring, testing and implementing in the cloud. Enterprises can select from SAP® a range of solutions that can be quickly deployed on the cloud platform. This also helps in significantly reducing the time for implementation.
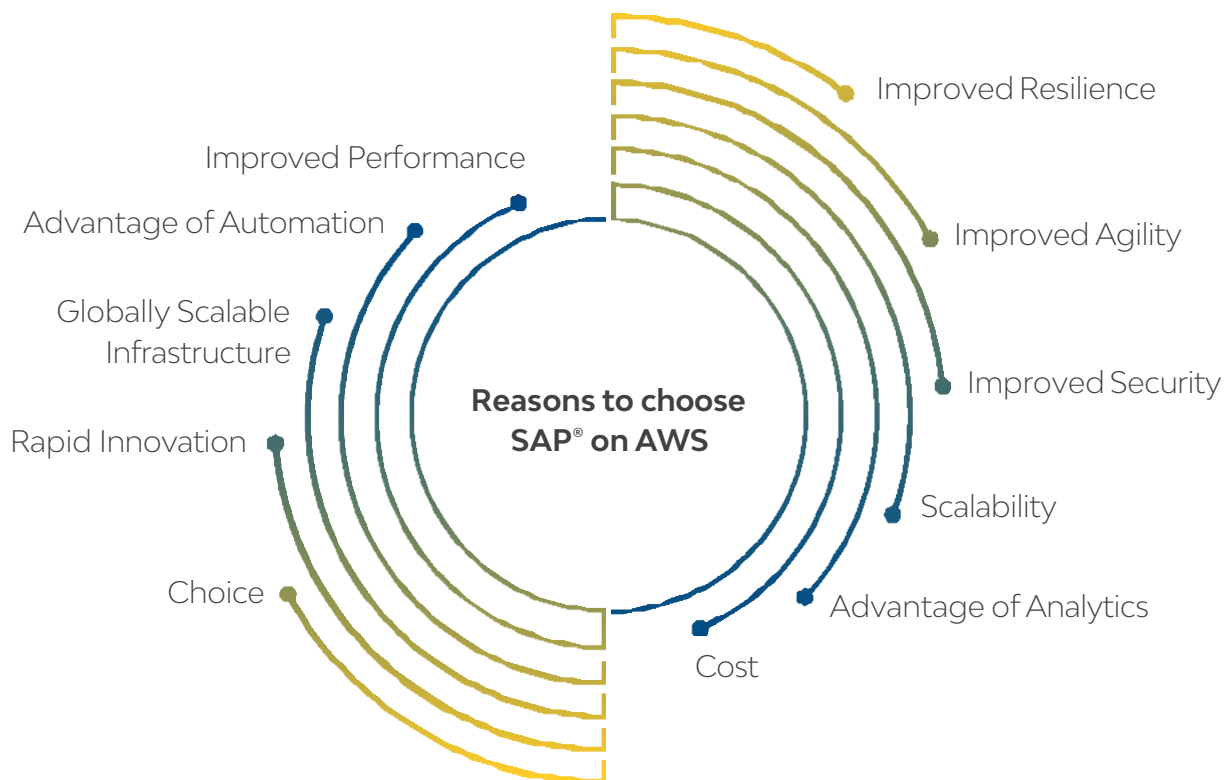
- **Technology Modernization:** By migrating SAP® to the cloud, enterprises can integrate and take advantage of emerging technologies such as artificial intelligence (AI), Internet of Things (IoT) or Blockchain more easily. For example, SAP® BW/4 HANA is optimized for SAP® S/4HANA and can give answers to complex queries in a matter of seconds, while the SAP® IoT solutions can be leveraged to recognize and understand usage patterns and derive insights from sensor data embedded in business processes. Additionally, organizations can also use SAP® Intelligent RPA to use RPA and take advantage of conversational AI capabilities to reduce manual activities.

- **Mergers & Acquisitions:** Given the flexibility offered by a cloud-based ERP, it is perfect for a scenario involving mergers and acquisitions. A cloud-based implementation gives organizations the ability to quickly continue business activities without any business disruption. Standardized templates can be used to ensure that the business processes of all the firms under the merger are in sync with each other. Data transfer is also relatively easier and can be monitored for any discrepancies. In addition, the low cost of usage coupled with low maintenance costs and no investments for hardware, makes the value proposition of cloud-based SAP® applications more attractive.

- **Performance and better efficiencies:** The cloud edition can offer faster upgrade cycles and better performance, as the software is optimized constantly by a dedicated team. Organizations that are looking to scale their infrastructure quickly and power their growth in a rapidly changing business environment will find the SAP® S/4HANA cloud beat the on-premises model. As per Forrester's *The Total Economic Impact™ of Migrating SAP® ECC to AWS*, a composite organization saw improvements in Labor productivities from 20% to 500%.

- **Hardware end of life**: For many organizations, the hardware used for hosting SAP® infrastructure has reached a stage where finding technical support is challenging. In such cases, the cloud-based model provides an advantage, as organizations do not have to invest anything upfront, and can consume resources on a pay-per-use subscription model.

- **Cost:** In the cloud model, an organization does not have to invest in internal IT support for SAP® infrastructure, as the responsibility of maintaining the uptime is with SAP® or a cloud partner. This can save substantial costs. There is no need to purchase IT infrastructure for hosting SAP® applications. A subscription pay-as-you use model allows organizations to have a predictable cost that includes everything. In addition, with a cloud-based model, organizations do not have to worry about the costs of upgrades, as software is instantly updated and does not require implementation support. In a cloud-based model, organizations will also save costs on spending for servers, monitoring, archiving and securing the SAP® applications. Overall, deploying SAP® environments in the cloud can lower the total cost of ownership (TCO).

- As per Forrester's *The Total Economic Impact™ of Migrating SAP® ECC to AWS*, some of the organizations were able to reduce consultant, contract, and employee staffing by almost 50% for both SAP® administration and DevOps from a business-as-usual perspective.

- **Scale to meet expanding business needs:** With a cloud model, organizations can start small and grow their SAP® infrastructure as the business expands. This flexibility levels the playing field between mid-sized organizations and large organizations, as even smaller organizations have access to the same transformational digital capabilities as larger organizations.

- **Choice:** Customers have the option to choose from a wide range of offerings in the marketplace that meets their unique business requirements, some of which are listed below:

  ▶ SAP®'s own SaaS offering "RISE with SAP®" that offers S/4HANA Cloud on SAP®'s own Data Center or a Hyperscaler of client's choice (such as AWS), and deployment model of client's choice (Public Cloud or Private Cloud). The offer also includes Business Process Intelligence, Migration tools and services, SAP® Business Technology Platform, SAP® Business Network Starter Package.

  ▶ S/4HANA OnPremise Edition, provisioned by the client on a Hyperscaler such as AWS (IaaS).

  ▶ Hybrid models offered via Partner Managed Cloud and other combinations.

Why SAP® on AWS is a compelling value proposition?

AWS has been running SAP® workloads since 2008, longer than any other cloud provider. Currently, over 5,000+ organizations trust the technology of AWS to modernize and transform their SAP® landscapes.

Reasons to choose SAP® on AWS

Improved Performance

Advantage of Automation

Globally Scalable Infrastructure

Rapid Innovation

Choice

Improved Resilience

Improved Agility

Improved Security

Scalability

Advantage of Analytics

Cost

Reasons to choose SAP® on AWS

Choice: AWS offers organizations one of the broadest choices for SAP®-certified cloud-native instances. Organizations can lift and shift their existing on-premises SAP® environment and use AWS services to modernize existing business processes and gain new capabilities.

Rapid Innovation: There are over 200 AWS services including offerings for IoT, data lakes, AI/ML, image recognition, and chatbots. Over 90% of new AWS features and services are built based on customer feedback and organizations have access to the latest technologies and innovations from AWS. This enables organizations to rapidly improve and differentiate their business and leverage to gain a competitive edge. Organizations can also take advantage of the growing list of AWS-native offerings from partners like LTIMindtree.

Globally scalable infrastructure: The AWS global infrastructure is built for reliability and performance and the AWS Cloud spans 81 Availability Zones within 25 geographic regions around the world. Each AWS region has its own independent power supply and backup facilities with multiple power and connectivity options, to reduce a single point of failure. This allows enterprises to deploy their SAP® environments across multiple availability zones to improve resilience.

Advantage of automation: AWS has an array of tools and frameworks that can help organizations automate their SAP® deployment and free up valuable resources. For example, with the AWS Launch Wizard, organizations can deploy production-ready SAP® landscapes in less than 2 hours. Similarly, it is possible to accelerate SAP® HANA backups with speeds of up to 2GB per second with the help of the AWS Backint Agent, an SAP®-certified backup and restore solution for SAP® HANA workloads.

Improved performance: AWS offers the largest selection of cloud-native, SAP® certified instance types from 256 GB to 24 TB. This makes it possible for enterprises to run up to 80,000 IOPS per instance with consistency, giving organizations the flexibility to support their unique and changing needs, while at the same time improving performance.

Improved resilience: AWS' global footprint is designed to ensure high levels of availability. In addition, the existing infrastructure of AWS is designed to be highly resilient with the capability to recover virtual machines automatically in the case of a hardware crash or failure.

Improved agility: With SAP® on AWS, organizations can do rapid provisioning and de-provisioning of the SAP® landscape. AWS also offers pre-configured IaaS plans that can be quickly deployed with minor customizations.

Improved security: AWS is architected to be the most flexible and secure cloud computing environment available today and supports 90 security standards and compliance certifications. Besides the ability to automate routine security tasks, all 117 AWS services that store customer data offer the ability to encrypt that data – a critical requirement in an age where data breaches have increased significantly.

Scalability: In the cloud, there are no restraints on scale. Organizations can scale proportionately in accordance with business requirements which can lead to improved cost-efficiencies and operational performance.

Advantage of analytics: Organizations have the ability to unlock deeper insights from their SAP®-related data to improve their efficiencies. For example, it is possible for organizations to combine SAP® data with non-SAP® data and apply analytics within an enterprise data lake, and identify opportunities.

Cost: By running SAP® on AWS, enterprises can save significantly. According to a 2020 IDC study, 85% of respondents reported moderate or significant cost savings by running SAP® on AWS. The cost savings are possible as organizations right-size their SAP® landscape and eliminate overprovisioning. AWS has been providing more value for its services, since the initial launch in 2006. This means that for more features or capabilities, enterprises will get more value for their investments.

Some common mistakes and possible solutions

Focus on TCO, not full cloud economics: The focus on TCO instead of the full cloud economics for any organization, is the most common mistake made by organizations. For gauging the value of an SAP® HANA AWS implementation, it is important to go beyond TCO and look at the overall value delivered, which could include improved availability, scalability, speed, security, and compliance. Value is also derived from deployment of new features or applications more quickly and with less errors. The economic value derived from these changes, can be far greater than the TCO. Increased business productivity can result in additional revenues and an increase in market share.

For example, a leading financial services firm was facing severe competition from smaller nimble players. The firm was unable to launch services quickly, as it had a highly fragmented landscape with 27 lines of business, each with independent IT strategies. LTIMindtree, an AWS Premier Consulting Partner, created a comprehensive application modernization plan and deployed tools to reduce migration time by 60%. LTIMindtree focused on the overall cloud economics to help the firm create a scalable IT infrastructure, with a potential 45% reduction in TCO over five years. LTIMindtree also leverages its own **LTIMindtree Infinity Insight Ops**, an insight-driven, digitally integrated platform that orchestrates the power of new SAP® solutions and technologies. It performs business process mapping as well as automated code remediation saving up to 50% of manual efforts.

Ignoring the impact of intangibles: One of the biggest benefits of a cloud-based infrastructure is reduced time to market. A new product or a service that can be launched quickly has a greater probability of succeeding in the market than competing in an overcrowded market. Typically, organizations focus only on the tangibles such as uptime, performance, TCO or ROI. However, intangibles such as agility, ability to rapidly innovate, ability to address new market opportunities, reduced bugs, and improved product quality must also be considered in determining the value of an implementation.

A case in point is where LTIMindtree worked with a global company to deliver enhanced financial insights with SAP® HANA implementation. The company saved US$1 million dollars annually due to the decommissioning of older technology solutions. The backup window was also reduced from 10 hours to 1.5 hours due to improved data compression.

For another leading life sciences company, LTIMindtree enhanced financial insights and the sales order management process. This SAP® on AWS implementation helped the company save US$1 million dollars annually through decommissioning out of contract old appliances, in addition to a 40% improvement in report performance. LTIMindtree also succeeded in reducing the database size from 18 TB to 2.9 TB. Today, it is possible for the company to perform advance analytical reporting and data ingestions using HANA in memory database capabilities.

Increasing risk via fragmented accountabilities across vendors: In an inter-connected world, every application is connected to another application. If organizations have many IT vendors, it can sometimes lead to difficulty in assigning accountability and responsibility to certain vendors. In some cases, certain components or solutions may be incompatible with another vendor. To avoid such issues, it is recommended that organizations must not have too many IT vendors where accountabilities can be fragmented in an environment where systems are interdependent.

Not optimizing performance through heterogeneous migrations as they are complex: Many organizations fail to do a detailed sizing exercise on their compute, storage and network requirements. Organizations should ensure that their storage configuration is designed or architected appropriately to meet the high throughput or IOPS requirements of the SAP® database. This becomes more complex in a heterogeneous migration, as the source database and target databases are different.

If the migration is done properly, it can lead to huge benefits. LTIMindtree has leveraged its cloud platform, **LTIMindtree Infinity LAMPS**, which helps organizations design and simulate different cloud solutions to identify the ones that best fit their specific business requirements. It helps clients with cloud resource provisioning, delivery and governance for SAP® implementations on AWS. It also provides an end-to-end cloud management portal and governance tool to manage SAP® and non-SAP® workloads on AWS. In addition, **LTIMindtree has also leveraged its LTIMindtree Infinity Smart Analyzer and LTIMindtree Infinity Profiler**. These tools have been used for making the business case to create the roadmap to ensure the final delivery.

"For a leading Modular Construction Organization, headquartered in the UK", LTIMindtree implemented a Greenfield SAP® S/4HANA landscape (60+ servers, and multiple SAP® products with a global user base) on AWS for enhanced system reliability and increased business adoption. LTIMindtree created a single window for IT operations that helped to increase productivity by 65% with a 60% reduction in costs.

Shallow pre-migration assessments: Before migrating to the cloud, it is important to do a pre-migration check to avoid any last-minute surprises at later stages. Organizations should analyze and identify any incompatibilities or issues related to a migration. Once the compatibility check is completed, the results are then displayed and classified into database and applications compatibility. It is therefore imperative to have robust pre-migration assessments to ensure seamless transition to cloud while leveraging its benefits fully.

A well-planned migration can lead to many benefits. For example, LTIMindtree helped a French Utility Major, a global leader in optimized resource management, migrate the largest SAP® on-premises landscape in Europe to AWS. For more than 16,000 employees globally, LTIMindtree completed the implementation in record time of just six months. This project involved more than 200 virtual machines, 130+ SAP® instances and 200+ interfaces. We leveraged our Mosaic Automation platform for successfully completing this implementation in record time with zero downtime.

For another organization, LTIMindtree undertook a detailed analysis that helped the client save significant costs. LTIMindtree right-sized the cloud instances (saved >20% of the overall cloud bill), cleaned up unused resources (saved 2-10% of the overall cloud bill), adopted open source (helped the client save 100% of enterprise license cost), and explored multi-cloud options (saved 30% of existingcloud spend).

To explore the infinite possibilities for your enterprise, get in touch with one of our SAP cloud experts by sharing a few details on https://solve.lntinfotech.com/questionnaire or write to us at sapcloud@lntinfotech.com.

About LTIMindtree

LTIMindtree is a global technology consulting and digital solutions company that enables enterprises across industries to reimagine business models, accelerate innovation, and maximize growth by harnessing digital technologies. As a digital transformation partner to more than 700 clients, LTIMindtree brings extensive domain and technology expertise to help drive superior competitive differentiation, customer experiences, and business outcomes in a converging world. Powered by 82,000+ talented and entrepreneurial professionals across more than 30 countries, LTIMindtree — a Larsen & Toubro Group company — combines the industry-acclaimed strengths of erstwhile Larsen and Toubro Infotech and Mindtree in solving the most complex business challenges and delivering transformation at scale. For more information, please visit https://www.ltimindtree.com/.