# Moving SAP ERP to the Cloud

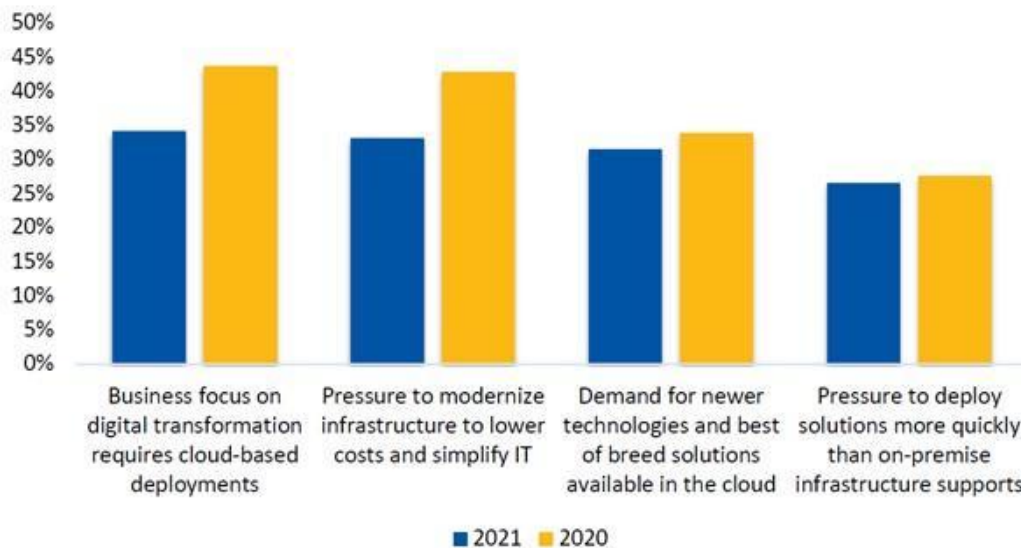## Considerations and Best Practices

# It's About Digital Transformation

In a bid to transition from legacy to modern data platforms, organizations of all stripes and sizes are moving their on-premises SAP ERP applications to the cloud. The rationale is irrefutable: the cloud offers a multitude of tangible benefits that accelerate agility, innovation, and digital transformation.

In a recent SAPinsider benchmark study[1], organizations cited a number of factors behind the move to the cloud, including a business focus on digital transformation, the pressure to modernize infrastructure, and a drive to lower costs and simplify IT. And, while every organization's experience with the cloud is unique, SAP customers who have taken the plunge are reaping the benefits of immediate scalability, flexibility, and accessibility. The cloud offers an agile path forward for business process improvement and innovation to kick-start an organization's digital transformation.

Figure 5: Top drivers for cloud deployment

Source: SAPinsider, September 2021
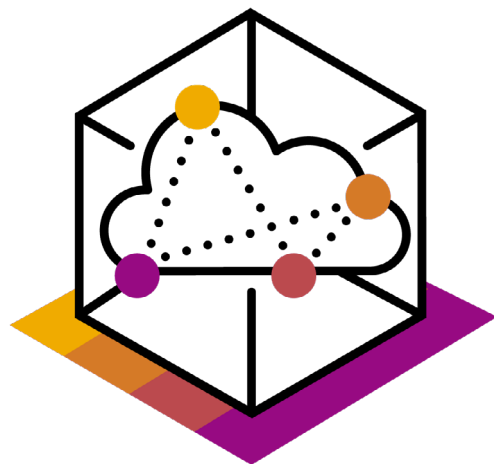
# Best Practices and Considerations

When it comes to transitioning SAP ERP to the cloud, strategy is the name of the game. This strategy must incorporate a significant **shift in IT thinking**—from static hardware to the infinite scalability of the cloud, from intricate, on-premises business processes to custom, automated processes in the cloud. Transitioning to the cloud also requires a significant **change in business thinking**—shifting from capital expenditures to the sometimes unpredictable costs of a subscription-based model and jettisoning a business-as-usual approach in favor of an overarching change management strategy.

For companies with significant investment in infrastructure for their on-premises ERP system, shifting an entire legacy ERP system to the cloud is a daunting task. Traditionally, companies have placed disproportionate emphasis on the age and processing power of their existing ERP hardware before making the decision to upgrade. But, as the cloud moves from aspirational to imperative for most organizations, hardware takes a back seat, and the focus turns to how to migrate the custom and intricate business processes that keep the organization running.

Compounding that challenge is the cloud urgency brought on by the pandemic, which sent companies scrambling to respond to market conditions in constant flux. In desperate need of the flexibility and agility offered by cloud-based processes, many organizations adopted piecemeal cloud applications and technologies that offered value as isolated 'islands of innovation' but were disconnected from one another within disparate IT landscapes. These organizations are now struggling to integrate those one-off solutions with their existing SAP ERP systems and business processes.

So what's the first strategic step in the journey to the cloud? Partner up. The importance of engaging a proven partner with the right SAP cloud migration expertise and acumen cannot be overstated—in fact, over 80% of SAP customers have tapped a partner for strategic direction when navigating the move to the cloud. What follows are some of the considerations and best practices organizations and trusted partners should contemplate when planning and undertaking a move to the cloud.

# Cloud Economics

Cost is always a concern when customers look to migrate on-premises ERP systems to the cloud. While cloud-based systems should ultimately offer significant savings over on-premises systems, it takes careful planning to reap those financial benefits.

Cloud systems present entirely different business economics—shifting from the predictable capital expenditures of acquiring and maintaining hardware and software to run SAP ERP systems to the sometimes unpredictable costs of a subscription-based model. For on-premises models, companies tended to size for maximum potential, anticipating where they wanted to go, but the cloud requires a pivot from depreciation to subscription, where organizations are able easily to expand or shrink their cloud capacities as they grow and evolve.

Without a trusted partner to draw the dotted line from cloud to finance, this shift can be troublesome—an unfamiliar subscription model can lead to overspending, for example. And without a strong, well-organized business case, flaws in cloud architecture can lead to spiraling costs instead of expected savings.

# Technical Debt Recoup

Recouping the substantial technical debt organizations have invested in their ERP systems, often over the course of decades, to personalize and customize their legacy platforms is another concern as organizations move away from on-premises systems, often compounded by questions about how they will replicate these complex, unique landscapes in the cloud. This technical debt sometimes includes an army of ABAP developers with a skillset that might not seem readily transferrable to the task of integrating and managing cloud-based systems.

If an organization's business model has nuances that aren't addressed by SAP S/4 HANA Cloud right out of the box, any functionality gaps can be met using cloud services and technologies to create new apps and capabilities. Companies also must consider which pieces of their existing ERP system are worth transporting to the cloud and which unused legacy solutions can be decommissioned. Migration tools and resources can help companies move or recreate the elements of their legacy ERP systems that need to be transferred to the cloud, but, again, a clearly defined strategy is key.

# Change Management

Organizations are understandably eager to minimize downtime and disruption as they transition to the cloud. To unlock the full potential of new cloud-based tools without skipping a beat, enterprise users need a change management strategy rooted in design thinking; a strategy that will assess and address end-user perspective and assign resources to guide the company's workforce through the process of adopting and maximizing new capabilities. This strategy should also consider integration and architecture to ensure a smooth transition to the cloud with minimal data movement.

A change management strategy must also address the business case for the cloud with revamped IT planning and budgets that account for the economics of cloud-based systems. Every company will have unique business requirements that must be identified at the outset of a cloud transition.

# A Clean Core

Central to a data migration strategy must be a focus on a clean, undisrupted core ERP, facilitated by technologies like SAP Business Technology Platform, which can host innovation and leave the core untouched. Maintaining a clean, unencumbered core is of paramount importance at every stage of a cloud transition, from planning to operating in the cloud.

The best practices that follow play a key role to ensure your organization's ERP core remains clean.

## Data Migration

Establishing a data migration strategy is another essential step. Companies need consistent data models; clean, organized data; and the right tools in order to efficiently and securely migrate data. A defined approach to data archiving, with collaboration between IT and business teams, can establish enterprise-wide standards for data organization that keeps expensive hot storage to a minimum while maximizing strategic cold storage for data that is not routinely accessed.

## Cloud Combinations and Integration

Although "the cloud" that inhabits popular consciousness seems like a monolith, there are many cloud combinations available to meet companies' ERP needs. A future IT landscape could be a hybrid approach of on-premises system, ERP in the cloud, and other cloud offerings, woven together by an integration strategy that encompasses "cloud to cloud" and "cloud to ground" needs. The cloud-based integration solutions of the SAP BTP can create a single information ecosystem across all solutions and applications in use within the organization.

Strategic design of cloud integration and architecture is essential to ensure a smooth transition and to maximize the benefits of operating in the cloud. Using APIs to connect applications adds a layer of intelligence on top of all systems and reduces data movement and duplication. A well planned out cloud integration strategy gives organizations the agility to innovate, allowing them to evolve continuously without the need for incremental investment.

# ◤ Public or Private Cloud?

Another major cloud migration decision point: public or private? This is a broad topic that deserves its own whitepaper but to keep it short: for smaller to midsize organizations, the standard functionality of a public cloud, with pre-built best practices and a visible software roadmap to which companies can align their strategic growth areas, might be ideal. Larger companies that require customizable solutions and want to continue managing their business entirely within the four walls of the organization would opt for a private cloud. Companies must ensure that their cloud choice, a decision that will endure for the foreseeable future, will accommodate anticipated growth and evolution. A trusted partner can weigh the options, strategize, and guide companies to an SAP architecture that will meet their needs today and into the future.

# ◤ Security and Privacy

Both private and public clouds can raise questions about data management and security. SAP's decades of experience helping organizations adhere to the most rigorous standards for secure data management and storage means that either cloud option provides the same security and privacy that customers have come to expect for their on-premises systems. For larger organizations—especially those with specialized security concerns, like HIPAA compliance customers, for example—the private cloud model, where business is still managed entirely within the four walls of the organization, offers additional layers of reassurance.

# Why SAP Business Technology Platform?

Transitioning to cloud-based ERP systems is a transformational change; it is imperative to plan strategically and anticipate areas of concern. As organizations undertake this essential process, common questions include: How can we avoid data proliferation as we transition to the cloud? How can we cleanse our data to make it more meaningful? How can we keep our core ERP processes clean as we move to the cloud? How can we build optimized business processes to address future needs? How can we ensure that our systems and data are secure in the cloud?

Addressing these questions with a trusted partner and an innovation solution like SAP Business Technology Platform (SAP BTP) means that data and the ERP core processes will emerge from a cloud transition cleaner and more secure than ever before.

Many customers know that it's time to make the move to SAP S/4HANA Cloud, but they get stymied by multiple considerations and challenges and hesitate to move forward. Regardless of a company's size or current technology infrastructure, SAP BTP offers a number of essential services that have proven critical as organizations successfully shift their SAP ERP workloads to the cloud.

The beauty of SAP BTP is that it eases the cloud transition at every step of the journey. Before a cloud migration has even begun, SAP BTP, with its countless made-for-business, pre-built integration solutions, services, and content, can go to work. SAP MDG, part of SAP BTP, manages the creation and governance of master data from the old ERP system into a consistent, central system, validated and replicated to all machines—standard best practice before a move to the cloud.

SAP BTP also helps migrate data to cold storage, optimizing systems and maintaining lower costs in the cloud. All of this work establishes a clean and unencumbered ERP core, which makes for a painless transition to the cloud. Moving custom code into SAP BTP, which allows ABAP coding, also helps keep the core clean and ready for innovation, and ABAP developers can still use their expertise while they upskill and master the new cloud system. With low-code/no-code tools from SAP, developers can quickly extend existing processes to address changing business needs or build new applications to support new business models.

SAP BTP automates existing SAP ERP business processes and builds new processes as needed, eliminating error-prone, labor-intensive manual workflows. Piloting a new business process is a low-risk, low-cost proposition with SAP BTP. SAP provides reusable automations to many SAP S/4HANA Cloud processes helping you to accelerate automation. SAP customer Villeroy and Boch Group, one of Europe's oldest brands, used SAP BTP to clean up their on-premises system to prepare for the transition to S/4HANA Cloud. Villeroy and Boch were also able to leverage SAP BTP pre-built services and solutions to optimize productivity with intelligent bots while keeping their core ERP clean and untouched.

Once the transition to SAP S/4HANA Cloud is complete, SAP BTP remains an essential framework to manage integrations, process automations, and to maintain a clean core with valuable data that is always in the right place at the right time. SAP provides prebuilt integrations to SAP and third-party systems to reduce integration implementation and maintenance efforts. SAP BTP offers proven data integration tools that migrate data from multiple systems, and it maximizes the value of that data with the advanced business analytics and insights that SAP customers rely on for strategic decision making and long-term planning. Through the SAP ERP transition to the cloud and beyond, SAP BTP offers future-proof innovation.

# Why Deloitte and SAP

A cloud transition is inevitable. Organizations need the right guidance and the right tools to make the transition as seamless, efficient, and productive as possible. SAP brings decades of business technology experience to the table, along with best-in-class solutions and services that make innovation second nature. SAP Business Technology Platform offers everything companies need to chart a successful path to the cloud and beyond while a trusted partner like Deloitte, winner of the inaugural Pinnacle SAP BTP Partner of the Year award, offers the strategic thinking and design that is essential to an organization's cloud journey.

Deloitte positions organizations to evolve continuously because they know that the journey to the cloud is only the beginning, and they are firm believers in SAP BTP as an essential first step in that journey. For Deloitte, BTP is an IT imperative that provides the flexibility and agility their customers need in order to unleash new opportunities to innovate. Deloitte's unparalleled experience and knowledge of SAP BTP, along with their decades of experience working with SAP customers, makes them an ideal partner to provide the change management and strategic thinking and design experience required to pilot a successful cloud transition.

Find out more about how **SAP BTP** and **Deloitte** can transition your SAP ERP systems to the cloud.

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