# SAP Migration: Options, Challenges, Strategies & More

TechTarget

Most SAP customers are intent on an S/4HANA migration, but many projects remain stuck in the planning stages.

Between the complexity of organizations' IT landscapes and the mystifying array of SAP deployment options, aligning teams to undergo a technical *and* business transformation is a huge challenge.

Read on to learn about key S/4 HANA deployment options, top challenges that prevent successful migration, and strategies to improve transparency over the entire IT landscape for the duration of an S/4HANA migration.

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# Understand your S/4HANA deployment options

*JAMES KOFALT, PRESIDENT*

SAP S/4HANA represents a significant step forward in the company's flagship ERP product evolution. Its release is coinciding with SAP's stronger emphasis on cloud computing, leading many to mistakenly believe S/4HANA is a cloud-only product. While S/4HANA was designed with the cloud in mind, the product can accommodate multiple deployment options, including cloud, on-premises or hybrid environments.

However, the array of SAP deployment options can sometimes be mystifying. In addition, SAP frequently changes the terminology in their product portfolio and messaging. This article will refer to each flavor of S/4HANA by its current name and will also include some previous product names for clarification.

Here are the deployment options currently available for S/4HANA.

**S/4HANA CLOUD**

S/4HANA Cloud is the SaaS option and was previously called S/4HANA Cloud Essentials Edition. Prior to that, it was known as Multi-Tenant Edition.

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SAP created S/4HANA Cloud as a simple and standardized option for companies that prefer a cloud-focused ERP strategy. SAP hosts and manages the cloud platform and automatically installs upgrades, which are not optional. Functionality is limited to a subset of core ERP features, with industry software and operations capabilities available for 42 countries.

The most common use cases for S/4HANA Cloud are new SAP users or subsidiaries of larger enterprises that run on SAP. S/4HANA Cloud is limited to new greenfield implementations, so companies performing a direct migration from an older SAP instance should look for another option.

**S/4HANA CLOUD EXTENDED EDITION**

S/4HANA Cloud Extended Edition (EX), previously known as Single Tenant Edition, provides additional hosting options. Configuration and upgrade timing are more flexible.

As the product's previous name suggests, S/4HANA EX is based on a single-tenancy model, so users have much greater control over various aspects of their SAP environment, including third-party integrations. User interface options are more widely available. The Extended Edition also provides a broader features collection, so users have access to the full range of functionality found in SAP's on-premise S/4HANA ERP software.

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Users who choose EX must pay for a minimum user count. The count is based on a formula that applies weighted values to various user types and calculates a full user equivalent. S/4HANA EX's minimum user count requirement as well as its increased cost and complexity makes the product most appropriate for midsize and large enterprises.

Like the baseline S/4HANA Cloud product, the Extended Edition is only suited for greenfield implementations.

**S/4HANA CLOUD PRIVATE EDITION**

S/4HANA Cloud Private Edition is new in 2021. This edition builds upon EX and is more flexible. Users can make modifications and apply upgrades at their own pace.

Many of the distinctions between S/4HANA EX and Private Edition boil down to technical flexibility. For example, Private Edition allows the use of partner templates, which make it easier and more efficient to build out an environment based on third-party intellectual property.

Private Edition users can also carry out a system conversion or selective data transition from a pre-existing SAP environment. Because of that, many users migrating to S/4HANA in the cloud will likely select Private Edition.

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**S/4HANA ANY PREMISE MANAGED BY SAP ON HANA ENTERPRISE CLOUD (HEC)**

S/4HANA Any Premise managed by SAP on HANA Enterprise Cloud (HEC) combines the SAP's flagship ERP product with the HANA Enterprise Cloud and SAP managed services for private cloud. HEC is an infrastructure as a service offering that simplifies a complete SAP landscape's deployment and management. The process is simplified regardless of where it's hosted.

As Any Premise suggests, HEC users can deploy S/4HANA on their own hardware within their own data center or within an SAP-operated data center. They can also select a hyperscaler cloud provider such as Google, Amazon or Microsoft.

SAP handles the environment management no matter the location. Users receive additional SAP upgrades flexibility as well as partner templates use and maximum extensibility.

**S/4HANA ANY PREMISE MANAGED BY THE USER OR THIRD PARTY**

S/4HANA Any Premise managed by the user or third party is similar to Any Premise on HEC. However, with this option, the user is responsible for environment management. They can do it themselves or delegate it to a third party.

The user can host their SAP environment within their own data center or at a cloud hyperscaler. Current options include Google Cloud Platform, Amazon Web Services, Microsoft Azure, IBM Cloud, Alibaba, Huawei and Open Telekom Cloud.

Users should look at the size, complexity and functional scope of their planned S/4HANA environment as they decide which deployment option is right for them.

They should also think about the nature of their SAP implementation. Any of these deployment options will work for greenfield projects, but companies upgrading from an older SAP environment should consider options like Private Edition and HEC.

Organizations that can make do with limited flexibility in exchange for comparatively simple implementation and management should choose S/4HANA Cloud and S/4HANA Cloud EX. Meanwhile, larger enterprises with more complex functional requirements will likely gravitate toward Private Edition and HEC.

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# IT complexity slows S/4HANA migration pace

*JIM O'DONNELL, NEWS WRITER*

Most SAP customers are intent on an S/4HANA migration, but a lot of these projects remain stuck in the planning stages.

The culprit lies with the complexity of these organizations' IT landscapes, according to a new survey from LeanIX, a company based in Bonn, Germany, that provides IT infrastructure software and services for SAP and other enterprise systems.

LeanIX surveyed its customers who run SAP systems, and the results indicate that most have a long way to go before they'll complete a full S/4HANA migration.

The survey was conducted online in April 2021 and received 70 responses from SAP professionals, with about 50 who identified as enterprise architects who are or have been involved with S/4HANA migration projects.

The majority of respondents were enterprise architects in large enterprise organizations, who are tasked with planning and conducting major IT projects like an S/4HANA migration, said Christian Richter, LeanIX senior vice president of customer success.

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According to the survey, 32% of respondents are only in the planning phase of an S/4HANA project, while another 32% have started a project but are still in the preparation and conceptual phase. Just 12% reported that the S/4HANA transformation had been completed.

The survey results were not a surprise, according to Richter.

"From what I see with our customers, they are rather hesitant and are saying, 'Let's wait,'" he said. "Also, the launch of Rise with SAP didn't really accelerate that, so people are still waiting."

Rise with SAP is an initiative that SAP launched in January to help spur S/4HANA migrations by offering a simplified SaaS-like implementation model.

Perhaps the biggest stumbling block that's causing the hesitancy is the sheer complexity of typical SAP IT landscapes, Richter explained.

"In larger settings there are often multiple SAP instances running, through acquisitions or through organic growth," he said. "One respondent has 59 SAP systems running, and one is managing 130 SAP systems. It then becomes a huge challenge to know how many you have, what modules you have in those single instances, what's the path of consolidation for those."

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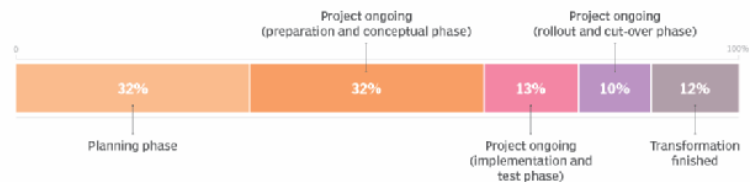
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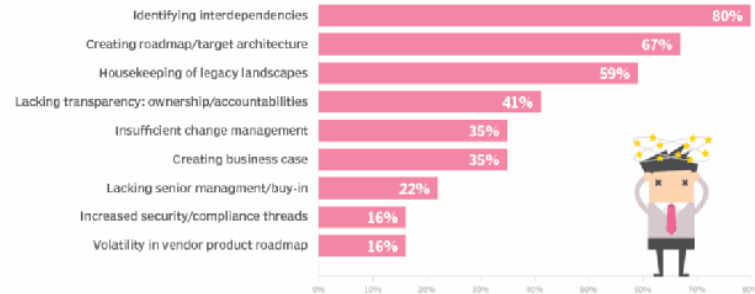


# IT complexity slows S/4HANA migrations

Most S/4HANA migration projects are stuck in the planning phase, but involving enterprise architects in all project phases may get things moving.
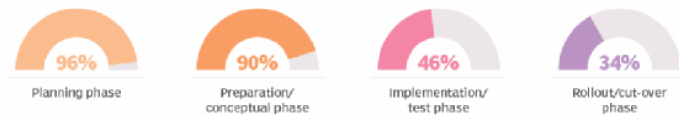
**Current phase of S/4HANA transformation process**

| Planning phase | Project ongoing (preparation and conceptual phase) | Project ongoing (implementation and test phase) | Project ongoing (rollout and cut-over phase) | Transformation finished |
|---|---|---|---|---|
| 32% | 32% | 13% | 10% | 12% |

SOURCE: LOAN: SAP S/4HANA SURVEY (APRIL 2021), RESPONDENTS WITH INVOLVEMENT IN TRANSFORMATIVE PROCESS, N=48

**Challenges of S/4HANA transformation**

| Challenge | % |
|---|---|
| Identifying interdependencies | 80% |
| Creating roadmap/target architecture | 67% |
| Housekeeping of legacy landscapes | 59% |
| Lacking transparency: ownership/accountabilities | 41% |
| Insufficient change management | 35% |
| Creating business case | 35% |
| Lacking senior managment/buy-in | 22% |
| Increased security/compliance threads | 16% |
| Volatility in vendor product roadmap | 16% |

SOURCE: LOAN: SAP S/4HANA SURVEY (APRIL 2021), RESPONDENTS WITH INVOLVEMENT IN TRANSFORMATIVE PROCESS, N=51

**Enterprise architects' involvement in phases of the S/4HANA transformation**

| Planning phase | Preparation/ conceptual phase | Implementation/ test phase | Rollout/cut-over phase |
|---|---|---|---|
| 96% | 90% | 46% | 34% |

SOURCE: LOAN: SAP S/4HANA SURVEY (APRIL 2021), RESPONDENTS WITH INVOLVEMENT IN TRANSFORMATIVE PROCESS, N=50

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## In this handbook:

**ENTERPRISE ARCHITECTS NEED TO BE INVOLVED IN ALL PHASES**

One way to help get S/4HANA projects moving and completed is to involve enterprise architects in all phases of the project, according to the report.

LeanIX provides software tools that allow customers to understand their entire IT landscape -- not just SAP systems -- including what the applications are, what their business functions are, who uses them, and the underlying technology layer, according to Richter.

The survey indicates that almost all enterprise architects who responded are involved in the planning and conceptual phases of projects, while fewer than half are involved in the implementation, testing and rollout phases.

Enterprise architects can help organizations get transparency over the entire IT landscape for the duration of an S/4HANA migration, Richter said. For example, it's important to see how application capabilities are supported in the current system and determine what capabilities are covered in S/4HANA.

"You have to look at what the landscape looks like today, what the landscape will look in two years if you follow the plan, what the landscape will look like in five years," he said. "You can determine how this will decrease your costs because you're phasing out the expensive components of today."

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**NEED FOR A TECHNICAL AND BUSINESS TRANSFORMATION**

SAP customers need to fully understand the IT landscape and their business processes if they are going to have a successful S/4HANA migration, said Roan Low, an SAP solutions architect at Syntax Systems, a Montreal-based firm that provides managed cloud services for SAP and other enterprise systems.

An S/4HANA migration is complex because it involves both a technical and business transformation, Low said.

"S/4HANA is not a simple migration; you can do a simple migration to S/4HANA, but you're not going to gain those benefits of going to an in-memory database by just moving your current business processes across there," he said. "This holistic business process transformation needs to occur in order to truly get the benefit of it."

Moving to an in-memory database also carries infrastructure costs, whether it's an on-premises or cloud infrastructure, Low said.

"So there are always additional costs that come from an S/4HANA database," he said. "Those are the two big reasons right now why companies are adopting a bit of a cautious approach as they move forward on their S/4HANA strategy."

**S/4HANA TECHNICAL UPGRADE NOT ENOUGH**

Organizations need to look at a move to the cloud as a prerequisite for business transformation and not just migrate their current operating model, according to Low.

"If you truly want to take advantage of the benefits that come from a cloud operating model, you need to change your IT operating model to align with that," he said. "You can do a technical upgrade from ECC to S/4HANA, but you're not going to get the true benefit unless you adopt the S/4HANA business processes."

There also needs to be alignment between the IT and business sides of an organization, Low explained.

"On their own, CIOs can easily do a technical upgrade; it gets them on a modern version of the product, but it's definitely not taking full advantage of what S/4HANA offers," he said. "To take full advantage there needs to be engagement from the business and key stakeholders who can help drive the project through to completion. If you don't have those people engaged, you're going to get resistance from the business to any business process changes."

*Jim O'Donnell is a TechTarget news writer who covers ERP and other enterprise applications for SearchSAP and SearchERP.*

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# Rise with SAP vs. S/4HANA Cloud: What are the differences?

*JAMES KOFALT, PRESIDENT*

Like many other companies, SAP is attempting to convince its users to switch to the cloud, and its subscription service Rise with SAP is a key part of the organization's efforts to move users to S/4HANA. However, confusion can arise over the differences between Rise with SAP and the company's other offerings, particularly SAP's S/4HANA Cloud software.

Here's a look at Rise with SAP vs. S/4HANA Cloud.

**WHAT IS RISE WITH SAP?**

Nearly a year ago, SAP announced the Rise program, which the company described as "business transformation as a service." The company hopes users will transition from thinking of software as a purchase-to-own product to embracing a SaaS model. SAP is also hoping Rise's technical migration path to S/4HANA will persuade users to make the switch.

Rise with SAP is less about core ERP functionality and more about ERP as a service, bundled with ancillary services to add value.

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Rise with SAP includes the company's S/4HANA Cloud ERP as well as SAP partner-provided migration and implementation services; access to the SAP Business Network, including Ariba; and intelligent business process reengineering, which is bolstered by SAP's recently acquired process-mining capabilities. Rise with SAP is offered on SAP's cloud platform, or SAP or a hyperscaler such as AWS or Google can host it.

One of Rise's key selling points is its "single contract," which SAP presents as a one-stop shop that includes software, services and infrastructure.

**HOW IS RISE WITH SAP DIFFERENT FROM S/4HANA CLOUD?**

Rise with SAP bundles SAP's products and services to create a unified experience for users, and S/4HANA Cloud is just one piece of that Rise with SAP package, albeit a very important one. The two S/4HANA Cloud deployment options are SAP's entry-level multi-tenant version of S/4HANA Cloud and the Private Edition, which offers greater flexibility and control.

Rise with SAP builds upon that ERP foundation with additional services, including hosting infrastructure and a defined set of cloud-managed services as well as the Business Network Starter Pack, which facilitates connections with suppliers, carriers and assets.