

SAPinsider Benchmark Report

Partner Tools and Services for SAP S/4HANA Migrations

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Research Partner







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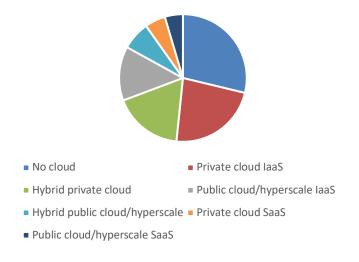
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Executive Summary

artners not only bring expertise, experience, and resources to help implement and integrate SAP S/4HANA, but many bring solutions required to transition to, test, and run SAP S/4HANA. These solutions and tools can include business process management (BPM) tools, SAP S/4HANA impact analysis tools, cloud infrastructure, automated SAP S/4HANA testing solutions, high availability tools, robotic process automation (RPA) for data migration, and operating systems.

In June of 2020, SAPinsider surveyed 172 members of our community to understand how they use partners' tools and services for their SAP S/4HANA migrations. We found that 75% of respondents believe a proven partner with experience represents an important requirement for a successful SAP S/4HANA migration. Also, most respondents will lean on cloud providers and partners, with 71% saying they will use some form of cloud infrastructure to host SAP S/4HANA (see **Figure 1**).

Figure 1. Most respondents plan to implement some form of a cloud strategy for their SAP S/4HANA migration



Source: SAPinsider, July 2020





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We feel that by acting now, we are migrating at a strategically good time. SAP has moved the end-of-mainstreammaintenance date out a bit, but that still probably will not soften the hit to consulting resource capacity when the main wave of migrations comes. Resourcing is tight now, but manageable, and available resources are of high quality with experience delivering SAP S/4HANA migrations. Reasonable consulting resource availability like this may not be the case down the road.



~ Director of SAP Architecture, ERP and SCM, American Spirits and Wine Company

Of those respondents using the public cloud to host SAP S/4HANA, Microsoft Azure remains the most popular cloud provider of choice — with 50% selecting Microsoft. Still, Google Cloud (21.1%) and Amazon Web Services (18.4%) are the chosen providers for 39.5% of respondents using public cloud for SAP S/4HANA, which suggests that organizations view these as viable options.

The survey results revealed several other trends for partner tools and services for SAP S/4HANA migrations in the SAPinsider Community:

- Most respondents (63%) plan to convert or upgrade operating systems as part of their SAP S/4HANA migration.
- Even more (66%) see an increased need to implement high availability or disaster recovery options for SAP S/4HANA, largely because of the COVID-19 crisis, which has put higher demands on the infrastructure due to a more distributed workforce.
- Respondents chose a high performing and secure infrastructure and operating system as the most important requirement (82% said it was important or very important) for a successful migration.
- Automating testing and data migration emerged as a top strategy for 38% of respondents and an important requirement for 70%, and 76% have used or plan to use automated testing solutions.

Required Actions

Organizations planning a migration to SAP S/4HANA must consider taking the following actions to ensure success:

 Investigate tools and services that will support the transition to cloud-based infrastructure. The companies that are planning on using a cloud infrastructure will need to make sure they have everything they need to go along with that, which can range from cloud-based virtualization solutions to







Be open to working with multiple partners who may specialize in different fields. For example - some partners are excellent at change management and training, while others offer extremely reliable services for data migration – so be open and flexible. Additionally, look for partners which offer packaged services with fixed scope and price. Also look for partners where consultants have both functional and technical expertise.



Bhuvan Wadhwa,
 Senior Director of
 SAP S/4HANA
 Marketing, SAP



managed services. Managed services could prove particularly valuable to those organizations running their ERP applications in a cloud infrastructure for the first time — as these companies often lack the experience in building and managing systems to maximize availability in the cloud or in configuring systems to prevent security risks.

- Invest in disaster recovery and high availability tools or add-ons for SAP S/4HANA. In the 2020 SAP S/4HANA Migration Benchmark Report, SAPinsider found that minimizing disruption to operations represented the most important requirement of a migration, and high availability and disaster recovery options can help minimize downtime.
- Choose partners with experience in your organization's preferred deployment approach.

 Experience means the partner has seen what works and what does not, and a good partner will translate that experience into a flexible process that adapts to the situation.
- Implement solutions that will help analyze processes and create deeper integrations between SAP S/4HANA and other business solutions. Deep integrations between SAP S/4HANA and business solutions emerged as the second most important requirement (77% rated it important or very important), and business process modelling and analysis tools came out as the most popular type of technology to support the deployment of SAP S/4HANA (86%). Process or workflow modelling tools with tight integrations to SAP S/4HANA, spreadsheets, and external web services can potentially help business users make and adapt to changes as part of the migration.



Chapter One: Partner Tools and Services for SAP S/4HANA Migrations Overview

Most members of the SAPinsider Community want to leverage the move to SAP S/4HANA to optimize processes and increase their efficiency. Partners, both systems integrators and solution vendors, can help them accomplish this as well as provide other elements necessary for a successful and efficient migration.

Best Practices Model - DART™

SAPinsider grounds all its research insights in its proprietary DART model. This research model provides practical insights that connect business **D**rivers and **A**ctions to supporting **R**equirements and **T**echnologies. Drivers represent internal and external pressures that shape organizational direction. Organizations take Actions to address those Drivers. They need certain people, processes, and capabilities as Requirements for those strategies to succeed. Finally, they need enabling Technologies to fulfill their Requirements.

Respondents' answers to our survey and interview questions revealed clear trends. To support the business drivers of optimizing processes and making them more efficient, respondents implement standardized processes for core ERP users, automate steps in the migration, and integrate SAP and non-SAP front-end systems and innovations with the core ERP system. To complete these actions, respondents require high performing infrastructure and operating systems, deep integrations between SAP S/4HANA and front-end systems, a proven partner, flexibility in choosing which customizations to preserve, the agile deployment of SAP S/4HANA instances, and automated data migration. Respondents use or plan to use a wide range of tools to fulfill all the requirements.



These trends are summarized in **Table 1**.

Table 1: DART model framework for partner tools and services for SAP S/4HANA migrations

Drivers	Actions	Requirements	Technologies
 The move to SAP S/4HANA opens new opportunities to optimize processes (62%) Pressure to increase business process efficiency (32%) 	 Implementing standardized endto-end processes for core ERP users (51%) Automating steps in the SAP S/4HANA migration, such as testing and data migration (38%) Integrating SAP and non-SAP front-end systems and innovations with the core ERP application (37%) 	 High performing and secure infrastructure and operating system (82%) Deep integrations between SAP S/4HANA and 	 Business process modelling and analys tools (86%)
		all the organization's business solutions/ front- end systems (77%)	• Impact analysis tool (80%)
		A proven partner with experience with multiple deployment approaches for SAP (//LANA (775))	• Virtualization solution (76%)
		S/4HANA (75%)	 Automated SAP S/4HANA testing solution (76%)
		 Flexibility in choosing which customizations to preserve (73%) 	
		 Agile deployment of SAP S/4HANA instances (73%) 	• High availability tool/ add-on (72%)
			 Open-source platform operating system (689)

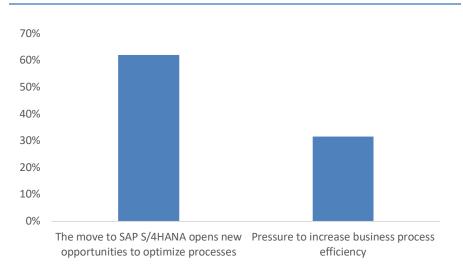
Source: SAPinsider, July 2020

What Drives Community Members' Approaches to SAP S/4HANA Deployments?

Drilling into the data, we found that 62% of survey respondents indicated that the move to SAP S/4HANA opens new opportunities to optimize processes, and 32% said they felt pressure to increase business process efficiency (see

Figure 2).





Source: SAPinsider, July 2020

Several survey respondents said that standardization on SAP S/4HANA with improved functionality, such as the Universal Journal, and embedded analytics open new opportunities to improve processes, and extended functionality via SAP Fiori apps can lead to additional innovation. Beyond the functionality within the SAP systems, SAPinsider Community members will use partner tools and services to redesign processes, analyze the impact of changes, automate testing, integrate SAP S/4HANA with other business solutions, and innovate further with intelligent automation and other technologies. With standardized processes on SAP S/4HANA, businesses can more easily apply and scale automation, which increases efficiency and the capacity of employees.

How Do SAP Customers Meet Their Business Drivers?

More than half of (51%) respondents reported implementing standardized end-to-end processes for core ERP users as one of their primary strategies to address the above drivers (as







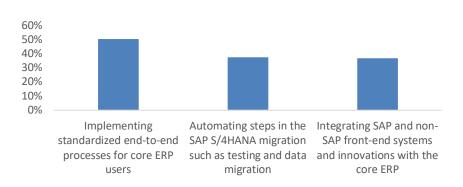
Some opportunities to optimize business processes include the Universal Journal to ease financial close reporting, embedded analytics to provide more focus on financial. supply chain, and other business enablers, and SAP Fiori apps to help improve usability and the user experience. Outside of the built-in functionality, and as we move forward in followon phases, we plan to take advantage of artificial intelligence, RPA, blockchain, and other vendors' technologies that we can apply more easily to SAP S/4HANA to further optimize business processes.



~ Vice President, Information Technology & Services, American Agricultural Cooperative

seen in **Figure 3**). This directly addresses both major drivers from Figure 2. For this strategy to work, IT, and business users must collaborate, and if done correctly across the entire enterprise, it can make it easier to scale automation. Partners can help standardize and optimize processes as well as provide BPM tools to help organizations model, monitor, and improve them.

Figure 3. Top strategies prioritized to address the top drivers of change



Source: SAPinsider, July 2020

Additionally, 38% of respondents chose automating steps in the SAP S/4HANA migration, such as testing and data migration. Several partners provide tools specifically for these purposes because manual testing and data migration can bottleneck an implementation. Automated testing tools can perform in hours what manual testing takes over a month to complete, and they can run tests against updated data sets day after day to check for accuracy and consistency.

Another 37% of respondents chose integrating front-end systems and innovations with the core ERP application. This helps meet the driver of improving business process efficiency because most end-to-end processes run across multiple software products and applications. To improve efficiency, SAPinsider Community members should build integrations between business solutions and SAP S/4HANA.





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As part of the migration, first decide if it's easier to revert to standards or better to effectively migrate the as-is processes. Then from a technical design perspective, try not to do too much at the same time, and tackle the simplification project later. Largely, this has been an IT discussion in terms of strategy and approach, but we want to get the business side involved if they are excited. If they are not excited, it is harder.



~ Senior IT Delivery Manager, Multinational Pharmacy Chain



Key Takeaways

Based on our research with respect to drivers and strategies for SAP S/4HANA deployments, we recommend that organizations consider the following advice:

- Use the move to SAP S/4HANA to optimize business processes. SAP S/4HANA itself offers improved functionality to run business processes more efficiently, and partners offer a variety of solutions to redesign processes, analyze the impact of changes, automate testing, integrate SAP S/4HANA with other business solutions, and innovate further with intelligent automation and other technologies.
- Consider standardizing processes as part of the plan to migrate to SAP S/4HANA. Moving away from customizations and leveraging standard functionality makes it easier to integrate and scale intelligent technologies and automation solutions from a variety of vendors across the enterprise.
- Automate data migration and testing for the migration itself. This can help avoid bottlenecks in the implementation and could potentially cut out weeks of work.
- Integrate SAP and non-SAP front-end systems and innovations with the core ERP system. End-to-end processes run across multiple software products in heterogenous IT landscapes. Improving the efficiency of these processes requires tight integrations between the different products and SAP S/4HANA.

Chapter Two: How Do Customers Approach Partner Tools and Services for SAP S/4HANA Migrations?

The SAP S/4HANA migration requires several different capabilities to succeed not only as a technical upgrade but also as a business platform capable of integrating with new innovations to accelerate processes. Of course, that business platform cannot work without a solid, reliable, and secure technical foundation. This section explores how organizations prioritize the different requirements and capabilities they need for a successful SAP S/4HANA migration strategy and the tools they have used or plan to use to meet those requirements.

Top Requirements for SAP S/4HANA Migration Strategies

Respondents to the survey selected high performing and secure infrastructure and operating systems as the most important requirement, with 82% indicating this was important or very important to the success of their SAP







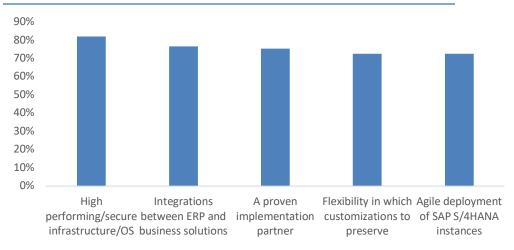
Our SAP S/4HANA instance is hosted by a private cloud hosting partner. As a quasigovernment organization, we had to go through an RFP process. We needed someone reliable and consistent with trustworthy security. Disaster recovery is standard with many private cloud providers now as well.



~ Tammy Powlas, Senior Business Analyst, Fairfax Water

S/4HANA migration strategy (see **Figure 4**). Partners provide the infrastructure and operating systems for SAP S/4HANA. If going to the cloud, many SAPinsider Community members will lean on one partner to uphold strict service-level agreements (SLAs) and another partner to provide the operating system.

Figure 4. Top requirements for SAP S/4HANA migration



Source: SAPinsider, July 2020

Respondents chose deep integrations between SAP S/4HANA and business solutions as the second most important requirement (77%). This supports the strategy for integrating SAP and non-SAP front-end systems with the core ERP application. During interviews SAPinsider conducted, several community members said they had faced challenges integrating SAP S/4HANA with their other business solutions, which led to inefficiencies and extra work. Several partners provide SAP ERP integration platforms, enterprise integration platforms, and data integration tools specifically for this reason.

Also, survey respondents see a clear need for an implementation partner that has experience with their preferred deployment approach (75%). If the partner has this experience, the consultants should have a process to identify what resources and technologies the situation requires to make sure the migration goes smoothly and can optimize processes within the constraints of the deployment approach.







We have plenty of cases where we faced challenges integrating SAP S/4HANA with other business solutions. Many of these cases involve payments to suppliers that are managed through external systems. That comes in through an interface that cannot be read in SAP S/4HANA. We are having to change those interfaces so they can be read.



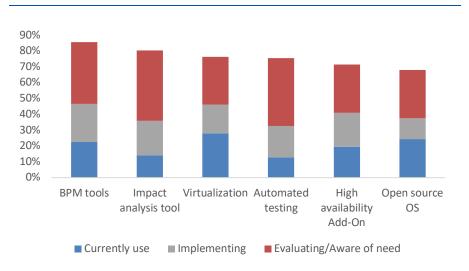
~ Senior Project Manager, Global Manufacturer

Other top requirements include flexibility in choosing which customizations to preserve, and the agile deployment of SAP S/4HANA instances. These requirements largely depend on the choices the SAPinsider Community members make regarding infrastructure, deployment approach, implementation and integration partners, and amount of automation.

Which Partner Tools Do Respondents Use to Support Their SAP S/4HANA Migration Strategies?

BPM tools, virtualization solutions, and open-source operating systems represent the most popular technology in use today, with at least 23% of respondents already using each (see **Figure 5**). BPM tools can directly address the top two drivers, but only if business users buy-in and use them. Modelling and analyzing processes only pay off if the users take the output and use it to optimize the process.

Figure 5. Popular technologies to support deployments of SAP S/4HANA



Source: SAPinsider, July 2020

Most respondents will invest in impact analysis tools, automated testing, and BPM tools. Even though BPM tools already have significant adoption, it will increase even more as more companies want to take advantage of the





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We are running some smaller SAP systems in Windows Server and with Hyper-V. With this, we do not need to purchase new hardware. Our main systems are running on an open-source operating system with hyper-converged infrastructure, which is an awesome setup for SAP systems, since we can run multiple systems in one physical box, which saves us money from disaster recovery hardware.



~ IT Development Manager, Finnish Dairy Manufacturer

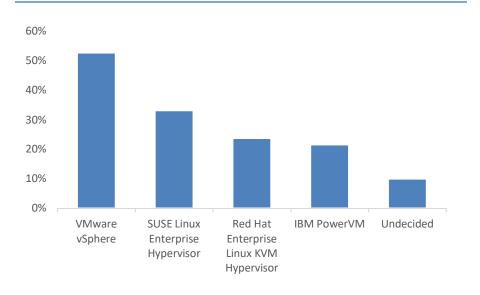


opportunity that SAP S/4HANA presents to optimize processes. Impact analysis tools from partners can help provide detailed insights into every decision that goes into an SAP S/4HANA migration. Automated testing directly addresses the strategy for automating the migration steps and can save significant time not only during the actual migration but also for future updates.

High availability tools and add-ons have increased in popularity due to the COVID-19 crisis, with 66% seeing an increased need to implement these options.

For virtualization products, VMware vSphere has the market lead among survey respondents, with 53% saying they use or will consider it for SAP S/4HANA. SUSE Linux Enterprise Server (33%), Red Hat Enterprise Linux kernel-based virtual machine (KVM) hypervisor (24%), and IBM PowerVM (22%) remain in tight competition for the second most popular virtualization option, while 10% remain undecided (see **Figure 6**). Respondents could choose more than one option.

Figure 6. Preferred virtualization options for SAP S/4HANA



Source: SAPinsider, July 2020



Key Takeaways

Based on our research, we recommend community members consider the following:

- Prioritize the decisions around infrastructure and operating systems. With 82% of respondents citing the importance of high performance and security, this highlights how critical it is for organizations to focus on finding the right partners to fill this need.
- Look to partners to improve integration between SAP S/4HANA and business solutions. Lack of integration can cause challenges and inefficiencies and create extra work. It can also make it more difficult to leverage new innovations from both SAP and third-party vendors. Some partners bring expertise for custom integrations while others can provide SAP ERP integration platforms.
- Educate business users on the importance of using BPM tools to take advantage of the opportunity that SAP S/4HANA presents to optimize processes.
 BPM tools can directly address the top two drivers, but only if business users buy-in and use them.
- Use automated testing solutions to accelerate infrastructure, integration, and processes testing. This process of implementing SAP S/4HANA goes through many testing scenarios. Manual testing can take a month and involve hundreds of people. Diligent testing can ensure that security, infrastructure, and processes meet needs, but automated testing can accomplish the same objectives in hours. Most survey respondents (76%) use or plan to use automated testing.



Chapter Three: Required Actions

BPM tools, virtualization solutions, and open-source operating systems already have significant adoption among survey takers. Despite this, adoption will increase further as more companies move to take advantage of the opportunity that SAP S/4HANA presents to optimize processes, and most respondents (63%) plan to convert or upgrade operating systems as part of the SAP S/4HANA migration. Additionally, the highest levels of investment lean toward not only BPM tools but also impact analysis tools and automated testing.

Together, all these tools support the requirements for highperforming infrastructure and operating systems and deep integrations between SAP S/4HANA and front-end systems.

Survey respondents reported implementing standardized processes, automating steps in the migration, and integrating SAP and non-SAP front-end systems and innovations with the core ERP application to address the top two drivers of opportunities to optimize processes and increase their efficiency.

Steps to Success

Our research reveals that SAP customers should apply the following key steps to execute their SAP S/4HANA migration strategies:

- Identify the different types of tools that the organization needs to maximize process improvements. The opportunities to optimize processes drive the SAP S/4HANA deployment strategies for most survey respondents. Partners provide a wide range of BPM tools, impact analysis tools, testing solutions, SAP ERP integration platforms, and automation solutions.
- Evaluate where in the transition the tools being used will have the most impact. For every process that an organization wants to optimize, it



needs a plan for the technology enablers, the necessary integrations, the workflow modelling, the needed capabilities, the key performance indicators (KPIs), and the target business outcome. The tools will fit in at different points in this plan. The decisions around the technology foundation such as infrastructure and operating systems likely need to come earlier in the migration process.

- Get business user buy-in for BPM tools and changes to their processes. Technologies that directly apply to the day-to-day activities of business users need user acceptance to maximize the impact. In the case of BPM tools, business users will likely need education on the potential benefits and how they align with the plan for SAP S/4HANA.
- Work with a proven partner to execute the organization's plans and to set up SAP S/4HANA in a way that will flexibly support the organization through 2040. Survey respondents recognized the importance of a proven partner, and SAPinsider Community members need to understand that with mainstream maintenance for SAP S/4HANA lasting until 2040, they need to set up their instances to last until then, through any potential disruptions or changes in business model.

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Participant Profile

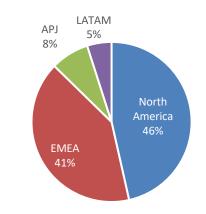
In June and July of 2020, SAPinsider examined the experiences of business and technology professionals related to their use of partner tools and services for SAP S/4HANA migrations. Our survey was taken by 169 members of the SAPinsider Community and generated responses across a wide range of geographies, industries, and company sizes. Respondents completed an online survey and provided feedback in customer interviews that questioned them on topics such as:

- What are the top drivers for an SAP S/4HANA deployment at your organization?
- What actions is your organization taking to address your organization's drivers?
- Which technologies and tools does your organization use or plan to use to support your deployment of SAP S/4HANA?
- What is/was your cloud strategy for SAP S/4HANA?
- Which public cloud provider do you plan on using for your SAP S/4HANA deployment?
- What virtualization options are you using/considering using for your SAP S/4HANA deployment?
- Do you plan to convert or upgrade existing operating systems as part of your SAP S/4HANA deployment?

Demographic information on the respondents included the following:

• **Job function:** Functional areas reported by respondents include: Information Technology (72%), Finance & Tax (11%), Business Development/Sales (4%), Human Resources (3%), Marketing (2%), Research & Development (2%), Supply Chain (2%), Manufacturing/Production (1%), Procurement (1%), Customer Experience (1%), and GRC (1%).

PARTICIPANTS PROFILE



- SAPINSIDET

 A Wellesley Information Services Company
- Sector: The survey respondents came from every major economic sector, including: Industrial (32%), Software & Technology (21%), Retail, Distribution, & CPG (16%), Public Sector (9%), Financial Services & Insurance (7%), Healthcare & Life Sciences (7%), Hospitality, Transportation, & Travel (6%), and Media & Entertainment (1%).
- **Geography:** Of our survey respondents, 46% were from North America, 41% were from Europe, The Middle East, and Africa, 8% were from Asia-Pacific, Japan, and Australia, and 5% were from Latin America.



Appendix A: The DARTTM 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's 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 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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