

# Over One-Third of SAP Customers Do Not Have the Infrastructure They Need to Execute SAP S/4HANA Plans

by Pierce Owen, Vice President, Research & Publishing, SAPinsider | January 2020

SAPinsider published several research reports in 2019 including “[SAP S/4HANA in the Cloud](#),” “[Deploying SAP S/4HANA](#),” and “[SAP S/4HANA: State of the Market](#),” all of which explored different aspects of SAP S/4HANA infrastructure and adoption.

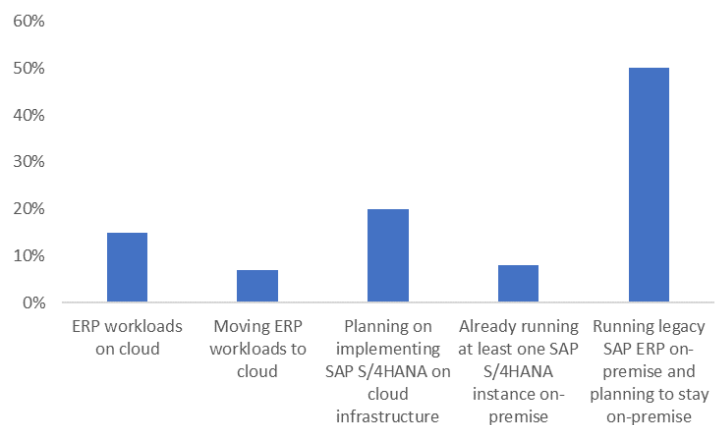
This research brief examines data trends from all three research projects to assess the infrastructure preparedness of SAP customers planning to migrate to SAP S/4HANA.

## Cloud, On-premise, or Hybrid Infrastructure

SAP customers can host their ERP workloads, SAP S/4HANA or otherwise, in three basic types of infrastructure: cloud, fully on-premise, or a hybrid landscape (meaning some components or ERP instances and workloads are in the cloud and others are hosted on-premise). Landscapes entirely in the cloud could further segment by private cloud, public cloud, multi-cloud, cloud-hosted, or cloud-based platform-as-a-service (PaaS), but for the purposes of this brief, any ERP deployment hosted entirely by third-party cloud infrastructure will fall under the definition of

cloud. Under this definition, 15% of SAP customers already have their ERP workloads entirely on cloud. An additional 7% have already started moving their ERP workloads entirely to cloud, and a further 20% say they will move to cloud when they implement SAP S/4HANA. That leaves 50% of SAP customers running legacy SAP ERP on-premise with plans to keep hosting instances on-premise and 8% already running at least some SAP S/4HANA workloads or instances on-premise (see Figure 1).

**Figure 1: Most SAP customers still run legacy SAP ERP fully on-premise.**



Source: SAPinsider, January. 2020

Companies relying on cloud or planning on implementing SAP S/4HANA on cloud may have to invest more in managed services because it takes specific skillsets to manage ERP in cloud environments. IT managers at these companies will also need to understand how to provide High Availability and Disaster Recovery for SAP HANA and SAP Business Applications installations as well as how to manage those applications through their infrastructure provider. Despite these new concerns, these SAP customers will not have to worry about investing in the appropriate high-quality on-premise hardware and infrastructure programmed and set-up to host SAP S/4HANA because the major cloud providers own the hardware.

On the other hand, SAP customers that decide to host SAP S/4HANA workloads or instances on-premise in their own data centers must lease or buy infrastructure optimized for that purpose.

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Heavy customization of processes, integration of internal systems with ERP, a large user base, complex business processes, security, and GDPR compliant infrastructure are the key drivers for us to keep some ERP instances on-premise.

”

~ Senior Manager,  
Indian Technology Company

## The Use of Hyper-Converged Infrastructure and SAP S/4HANA Preparedness

Hyper-converged infrastructure (HCI) can provide significant value to enterprises. HCI combines a hypervisor, software-defined storage, and virtualized networking to maximize the utility and performance of servers while minimizing the total cost of ownership (TCO). This means the enterprise uses software to create and manage networks, virtual machines, and a virtual storage area network (SAN) independent of the underlying hardware. Therefore, enterprises with HCI do not need specialized hardware but can instead run their networks, storage, and applications on commercial off-the-shelf (COTS) servers and simply leverage the compute power.

Unfortunately, implementing HCI does not necessarily mean enterprises have an optimized set-up to host SAP S/4HANA. For instance, 34% of SAP customers currently use HCI, but only 30% of SAP customers overall say they have the high-end hardware and on-premise infrastructure optimized to host SAP S/4HANA. This number drops to 27% for companies that plan to keep ERP fully on-premise. Therefore, 36.5% of all SAP customers plan to keep ERP fully on-premise but do not yet have the hardware and infrastructure optimized to host SAP S/4HANA in their own data centers. Moreover, only 44% of the companies that currently use HCI also have confidence that they currently have hardware and infrastructure optimized for SAP S/4HANA. This proves that, according to SAP customers, having HCI does not necessarily mean they



feel prepared to host SAP S/4HANA in an optimal configuration (see **Figure 2**).

SAP customers that fall into the group that plans to stay fully on-premise but lack infrastructure optimized for SAP S/4HANA have hardware and infrastructure investments to make to get ready for their migrations.

## What Does This Mean for SAPinsiders?

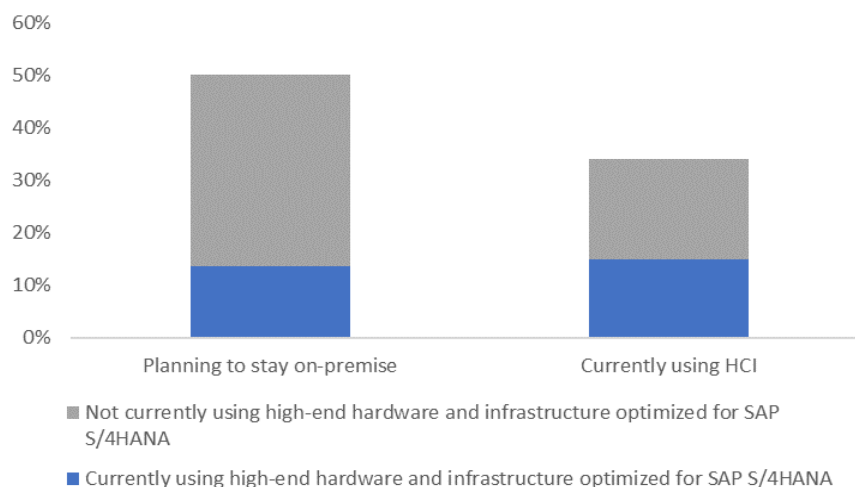
Based on our research, the following considerations can help SAP customers prepare their infrastructure for SAP S/4HANA:

- **With the 2025 deadline looming, SAP customers need plans in place for where they will host SAP S/4HANA: entirely in the cloud, on-premise, or a hybrid landscape of both.** Every SAP customer should start

planning for SAP S/4HANA because SAP has said it will end mainstream maintenance and support for core SAP ERP Central Component (ECC) in 2025, and the resulting potential cost to maintain core business functions could significantly affect many companies' bottom lines. Wherever customers decide to deploy (cloud, on-premise, or hybrid), they will likely have new considerations: either more managed services or new on-premise infrastructure.

- **If choosing on-premise or hybrid, prepare to invest in high-end, optimized infrastructure.** If SAP customers have even some of their SAP S/4HANA workloads or instances on-premise, they will need optimized and certified infrastructure in their data centers or else they risk poor performance.
- **If relying on HCI, SAP customers still must ensure that they have the optimal**

**Figure 2: More than one-third of SAP customers do not have the infrastructure they need to host SAP S/4HANA.**



Source: SAPinsider, January, 2020

**configuration for SAP S/4HANA.** HCI can improve the performance and lower the TCO of COTS servers, but HCI does not necessarily mean enterprises have an optimized set-up to host SAP S/4HANA. In fact, only 44% of the companies that currently use HCI also have confidence that they currently have hardware and infrastructure optimized for SAP S/4HANA. This proves that according to SAP customers, having HCI does not necessarily mean they feel prepared to host SAP S/4HANA in the preferred set-up.

• **Start running pilots and proof of concepts (PoC) for the preferred infrastructure landscape.** The year 2025 might still seem far away, but SAP S/4HANA implementations can take years even if a company can book its preferred consultants or systems integrators (SI). Every deployment option will require testing for both IT and operational performance. All SAP customers who have not yet started piloting SAP S/4HANA should build time into their implementation plans to do so.

Following this strategic guidance should help SAP customers get the most out their SAP S/4HANA infrastructure strategies.

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