

White Paper

For SAP Database and Cloud Migration, Don't Go It Alone

Sponsored by: Hitachi Vantara

Peter Rutten
July 2021

IDC OPINION

For most SAP customers, digital transformation (DX) and SAP modernization are intertwined to such an extent that one without the other is not feasible. IDC expects that by 2023, 60% of a business will depend on its digital platforms rather than on its physical infrastructure, and hundreds of thousands of SAP customers have embarked on the – sometimes treacherous – journey toward modernizing their SAP landscapes. Globally, migration to SAP HANA is well underway and migration to S/4HANA is slowly picking up steam. For SAP customers, this will be a mandatory shift to be completed by 2027. Migration to the cloud is what SAP is encouraging customers to do next (or simultaneously).

These transformations can be exceedingly complex, costly, and disruptive. But, at the same, they offer businesses opportunities to simplify, increase agility and adaptability, and achieve near-real-time responsiveness to market trends and fluctuations, both with their new SAP solutions and with the infrastructure and deployment scenarios that the SAP landscape runs on.

IDC is seeing vendors respond convincingly to SAP customer needs when it comes to providing them with the solutions, support, and services they need to execute their SAP modernization initiatives, because going it alone with these types of projects is something that most businesses consider as too risky. This paper discusses the challenges and opportunities that come with SAP landscape modernization and then takes a look at the comprehensive offering that Hitachi Vantara provides in this space.

SITUATION OVERVIEW

On the one hand "digital transformation" may sound like a cliché; on the other it is still the most critical mandate for businesses today. Modern digital technologies are radically transforming the things that businesses can do, turning them into "digital" enterprises and eventually into what IDC calls "intelligent" enterprises, with "intelligence" referring to the increasing infusion of artificial intelligence (AI) to augment the existing human intelligence in an organization. For example, a successful global pizza brand recently acquired an AI company because the pizza company decided that it was critical for the company to bring its AI-based consumer insights and marketing performance analytics in-house.

IDC is seeing this trend across industries and across regions. Digital technologies enable businesses to:

- Identify completely new opportunities for innovation.
- Conduct groundbreaking research that could lead to potentially disruptive product development.
- Deliver those new products or services much faster.
- Create digital products adjacent to physical products, so called "digital twins," which has completely changed product design – in the autonomous vehicle space, for example.
- Improve customer focus with digital strategies that provide greater responsiveness and quality of service.
- Enhance business and manufacturing productivity, for example, with AI at the edge to improve supply chains or plant robotics.
- Infuse everything they do with increasingly effective artificial intelligence – today, AI penetration in IT and OT is quite advanced, and IDC expects all workloads will become AI infused in the next several years.

The reasons for all this are straightforward:

- Customers across the globe are demanding a radically new experience from the organizations they do business with – they demand that these companies are digitally enabled and intelligent.
- Digital initiatives generate new revenue, including in previously untapped adjacent markets.
- Fear of competitors transforming digitally and becoming competitively stronger is causing tremendous peer pressure for businesses.

IDC expects that by 2023, 60% of a business will depend on its digital platforms rather than on its physical infrastructure. And that means that the IT organizations have to position themselves in a way that supports these new revenue-generating business models built with digital technologies. Obviously, digital transformation must be designed around a business' core applications and enterprise data, which are deeply integrated with the existing business model and of extremely high value to the business. And for many organizations, these core applications run on SAP software.

SAP as a DX Driving Force

SAP has done a tremendous job in driving its customers' digital transformation with on-premises and cloud-based platforms and solutions that digitize everything from supply chains to human resources. And SAP's crown jewel, the company's ERP platform S/4HANA, is continuously evolving to become an ever more powerful dashboard for managing the enterprise in real time based on vast amounts of data inputs, AI, and powerful analytics and visualizations. S/4HANA lets businesses respond instantly to market events of any type that impact the organization, with a level of control that is unprecedented. IDC research has shown that once SAP customers have adopted S/4HANA in production, the delight factor is tangible.

But to get there is a different story. SAP software has been driving organizations' business processes for several decades. It is like the traffic system in a large complex city, and making radical changes will upset the flow, cause disruption, create bottlenecks, and put the business at risk. Nevertheless, SAP has been urging its customers again and again to participate in major new innovations. The first large shift that SAP has required from its customers is to move from databases for running their SAP

applications such as Microsoft SQL Server, IBM Db2, or Oracle Database to SAP's own in-memory database SAP HANA. The second shift is less mandatory but ultimately just as unavoidable: to move as much as possible of the SAP landscape to a cloud deployment. And the third is a logical effect of the first two, which is the opportunity to modernize the operating environment as part of these shifts.

The Database and ERP Platform Change

SAP has mandated that SAP applications run on the SAP HANA in-memory database and has announced that by 2027 it will cease support for other databases running on the SAP NetWeaver platform in conjunction with the SAP applications. This effectively forces SAP customers to move to SAP HANA or start incurring high support costs for their databases after 2027. Many SAP customers take the 2027 deadline seriously, but some are banking on SAP extending the date yet again if too few of its customers have made the move.

Arguably, 2027 is still far away, but there is a complication. A move to SAP HANA goes hand in hand with a move to new SAP-certified hardware, whether an appliance or a so-called Tailored Datacenter Integration (TDI) where the business combines SAP-certified hardware components. Given that the typical life cycle of on-premises hardware is five years, time is running out to execute one more life cycle of non-HANA databases on non-SAP-certified hardware. After 2022, a noncertified hardware renewal will mean displacing that hardware in 2027 before its life cycle ends and the hardware has been fully depreciated. This is also true if the move to SAP HANA goes hand in hand with a move to the cloud. Per the SAP Corporate Fact Sheet of October 2020, 33,000 businesses had moved to SAP HANA at that time, a significant portion of SAP's total customer base.

In addition, businesses need to decide how they are going to move their ERP system. Today, SAP Business Suite is still the most common SAP ERP system and very few businesses have already migrated to SAP S/4HANA, the solution that integrates the database with the business software. SAP reported in June 2020 that there were 14,100 customers on S/4HANA, but the software company did not specify whether they are in production with SAP S/4HANA. IDC data shows that almost two-third of businesses with SAP S/4HANA had not reached the POC stage yet, and very few are in production. The hurdles that businesses face are: the complexity of a migration to SAP S/4HANA, the time the migration takes, and the cost. SAP Business Suite therefore continues to be the prime initial migration destination as few businesses migrate directly to SAP S/4HANA.

Shift to Converged Systems

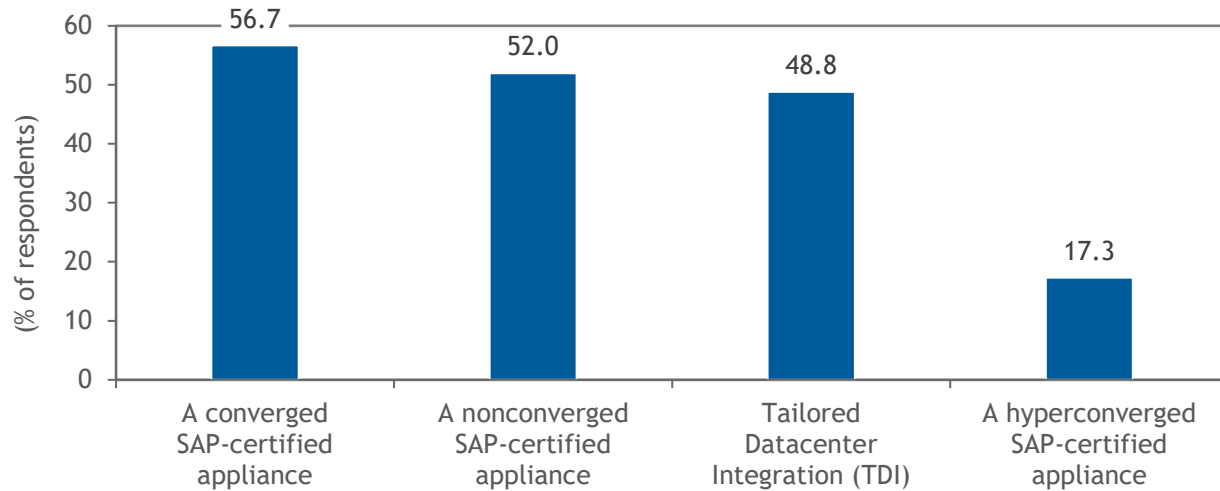
The fact that a move to SAP HANA and/or SAP S/4HANA means that new SAP-certified hardware is required complicates things further. One might call it an embarrassment of riches as there are, as of today, 171 SAP-certified appliance solutions from 14 vendors, 127 storage solutions from 19 vendors, and 30 hyperconverged system solutions from 7 vendors. There is a perception that these server and storage vendors offer very comparable products without much differentiation, and therefore cost often becomes the main criterion. But there are definitely differences, and they tie into major customer considerations such as security, performance, data protection, and high availability. Security and data protection are especially crucial in stringent regulatory environments.

IDC has seen businesses increasingly address the complexities discussed here by moving their mission-critical applications to converged systems (see Figure 1). Converged systems are pre-integrated, vendor-certified systems that contain all the required components including server hardware, storage, networking, and systems management software. When migrating to SAP HANA or S/4HANA on a converged platform, there is a distinct opportunity to consolidate hardware, reduce

overall complexity, lower the TCO of the total solution, and run SAP applications on the same platform next to the SAP HANA database.

FIGURE 1

Preferred SAP-Certified Infrastructure



Source: IDC, 2019

IDC research shows that businesses like SAP appliances because they find them easier and faster to deploy, with a lower TCO. They also believe that the appliances provide them more support from SAP. The biggest reason for not running on an appliance is a concern that with an appliance it becomes harder to remain up to date with new host processor generations. Also, the TDI approach enables leveraging existing infrastructure.

The Deployment Shift

As mentioned previously, SAP has been driving a major shift to the cloud, with the majority of its hundreds of solutions now being available in both a cloud and an on-premises version and increasingly many only in the cloud. SAP wants its customers to move to the cloud as much and as soon as possible (not in the least because of the higher valuation of cloud companies). There is a variety of scenarios in which SAP software can be consumed in the cloud, including:

- On infrastructure as a service (IaaS) at one of the SAP HANA-certified public cloud service providers (cloud SPs)
- On hosted infrastructure from managed service providers (managed SPs)
- On software-as-a-service (SaaS) platforms, including SAP's own cloud offerings

Recently SAP added SAP HANA Enterprise Cloud, Customer Edition, where SAP manages the infrastructure and SAP applications in the customer's datacenter.

With regard to IaaS, IDC research has found that businesses that have migrated to the cloud for their SAP landscape cite security, higher performance, and scalability as the top 3 benefits. But there are some caveats: businesses that have moved to the cloud with SAP may have data profiles that are less

vulnerable, while those with sensitive data have – for this very reason – not taken that step yet; and businesses that have moved to the cloud may have been running SAP on older hardware, which would explain the perceived performance boost. Scalability, however, is and always will be a cloud strength that is hard to replicate in an on-premises deployment.

With regard to data profiles, IDC research shows that in heavily regulated industries, businesses typically start by classifying workloads and applications based on the facility of data that can be on premises (or on private cloud) versus in public cloud. They will then determine that certain workloads cannot go to public cloud due to security and data privacy regulations (such as GDPR and CCPA) and instead opt for on premises, as a private or hybrid cloud.

Moving an SAP landscape to the cloud faces similar hurdles as a migration to S/4HANA: it is complex, usually takes longer than anticipated, and often costs more than planned for. It is also perceived as high risk since such a migration is more or less irreversible. Businesses also complain that there aren't enough provider tools, that they can't acquire the skill sets, and that they don't get enough support. As a result, businesses engage with managed service providers, systems integrators, and global systems integrators to help them with such initiatives – at steep consulting fees.

That said, IDC sees many cloud SPs working feverishly to ease the path to running SAP on IaaS for existing and new customers with migration tools and partner networks, not in the least because they believe that enterprise mission-critical workloads represent the next migration wave to the cloud, and they are determined to get a share of that pie.

Opportunities to Modernize

For a migration to SAP HANA or S/4HANA both on premises and in the cloud, there is an operating environment aspect. SAP HANA and S/4HANA only run on Red Hat Enterprise Linux (RHEL) and SUSE Linux Enterprise Server (SLES) for SAP to be precise. This complicates the migration for businesses that had been running their database for SAP on Windows (SQL Server) or Unix (Db2 and Oracle). These businesses may not have had much exposure to Linux, lack the skill sets, or even have an open source-averse culture. All of these will need to be overcome, but IDC believes that the Linux distributions that have been SAP certified are enterprise grade and should not be cause for any concerns.

Indeed, the more or less forced shift to Linux offers an opportunity for SAP customers to modernize their larger SAP landscape. For many businesses, the major components of their SAP landscape are SAP HANA (the in-memory database), SAP S/4HANA (the integrated SAP ERP and database solution), SAP AI Business Services (the software platform for enabling IoT, machine learning [ML], blockchain, analytics, and Big Data), and SAP Data Intelligence (the data sharing and orchestration solution). Modernizing and streamlining the landscape on a Linux operating environment can yield:

- Improved datacenter efficiency, including fast deployment and change management, downtime prevention, and automation
- Better hybrid cloud management, which can help improve simplicity, governance, policy-based control, self-service functionalities, and automation
- Greater integration, allowing SAP and non-SAP applications and data to be integrated for higher data quality and richer business insights that can be derived from them
- New solution development, with new technologies such as AI, blockchain, or IoT becoming competitive drivers (Businesses need a platform like SAP Data Intelligence that combines

integration, orchestration, metadata management, and connectivity with SAP AI Business Services machine learning in the cloud to help IT and data science teams collaborate.)

Other Hurdles to Overcome

Furthermore, IDC research has found that the shift from AnyDB to SAP HANA is far from trivial for most organizations for a number of additional reasons. Some of our findings are:

- Many businesses have stakeholders that do not see the urgency of moving to SAP HANA or S/4HANA due to the deadline extension; this leads to misaligned priorities in the enterprise.
- Migration of an SAP landscape to SAP HANA requires a dedicated team in the organization representing all the stakeholders – often, vendors will be included as well – that starts the planning process; this planning process can take as long as a year.
- Businesses are having trouble with performing solid ROI evaluations up front to justify the migration to SAP HANA because of the intuitively understood but harder-to-quantify business benefits from running on the in-memory database, especially with a move to S/4HANA.
- Sizing an SAP landscape can be complicated, especially when determining what the future infrastructure requirements should be after modernization and consolidation; IDC often sees businesses underestimating the amount of infrastructure as well as the configurations they will need, for example, but overestimating will only lead to unnecessary additional cost.
- Deciding on the deployment scenarios for the various SAP platforms and applications can be tough due to the richness of options and considerations – which workloads should remain on premises (as a private cloud or hybrid cloud), which should go to an IaaS provider, or which can be consumed as SaaS?

A Partner Is Required

Based on what IDC has seen, SAP modernization, SAP database adoption, and SAP cloud migration together pose a challenge with too many variables for most businesses. The complexities can be enormous and yet the outcome needs to be a simplified, well-integrated, highly performing landscape that satisfies the needs of the lines of business. This is why very few businesses go it alone with such an initiative and typically collaborate with a range of parties, such as the aforementioned consultants, but also the cloud providers and the server and storage vendors. Especially with the latter, many organizations already have a long-term, intimate relationship. And several SAP-certified server and storage vendors provide extensive SAP modernization support that goes well beyond the infrastructure, including consulting and even cloud hosting.

HITACHI'S SAP PORTFOLIO

About Hitachi for SAP

Hitachi has been an SAP partner for more than 25 years and is keenly focused on providing infrastructure, deployment scenarios, and support and services to SAP customers to help them alleviate the previously described hurdles with migration to SAP HANA, S/4HANA, and/or the cloud for running SAP solutions.

Hitachi runs SAP centers of excellence that provide demos, POCs, and various other support functions for businesses that are considering Hitachi solutions for their SAP landscape. These centers feature facilities for events and workshops, access to product and solution platforms and secure access to POC environments, and solution specialists.

Hitachi also provides reference architectures for highly scalable SAP HANA hyperconverged infrastructure (HCI) that provide fully integrated single-system support. Businesses have flexibility in choosing the size of compute, storage, and networking components in the node. The storage is software defined with Hitachi's Unified Compute Platform (UCP) HC. The hardware elements are Hitachi Advanced Server DS240 for running VMware vSphere to host SAP HANA and storage that is backed by VMware vSAN, Intel Optane storage-class memory, and NVMe technology.

The company currently offers five SAP-certified appliances with scale-up and scale-out options for Business Warehouse on SAP HANA (BWoH), Business Warehouse for HANA (BW4H), data mart (DM), Business Suite on HANA (SoH), and Suite for HANA (S4H). Hitachi also offers four SAP-certified storage solutions (SAN with Fibre Channel). And the company markets an SAP-certified hyperconverged infrastructure solution based on its Unified Compute Platform.

Hitachi SAP Solutions and Service Portfolio

Hitachi's SAP solutions and services portfolio includes, as mentioned previously, the Hitachi Unified Compute Platform for SAP HANA plus various storage solutions, Hitachi consulting services for digital transformation based on SAP, and Hitachi SAP design and implementation services and application maintenance services. Furthermore, Hitachi offers the Cloud Management Infrastructure as a Service (CMIaaS) Model, covering full on-premises and off-premises managed full-stack SAP HANA services (from hardware to service), fully integrated in the customer's governance model (using the customer's tools and policies for change management, incident management, and security and compliance).

Hitachi Consulting

Hitachi has more than 2,500 consultants around the world that, according to the company, have delivered more than a thousand SAP projects to date. The consulting service provides:

- Digital transformation as a service (Hitachi will design, build, implement, run, and support an SAP solution and does this for a straightforward monthly fee.)
- Fast-track SAP S/4HANA assessments (on premises or public cloud) and migrations
- Cloud services, including cloud onboarding services and managed cloud services
- Smart manufacturing for SAP based on Hitachi's Digital Manufacturing Suite, which creates a platform for predictive quality (pinpointing root causes and trends for poor quality with predictive analytics), dynamic scheduling (identifying schedule variance and predicting downstream impact), factory optimization, predictive maintenance, and water and energy management
- Building an "intelligent" enterprise based on SAP Cloud Platform (SCP), SAP Analytics Cloud (SAC), machine learning, blockchain, and other innovations that enable a flexible, adaptive, and intelligent enterprise
- SAP software for on premises, in a managed cloud, or in a public cloud
- SAP Cloud Analytics for data visualization and predictive analytics in the cloud

Full-Stack SAP HANA Services

Hitachi manages and monitors all layers of SAP HANA platform stack services for customer on-premises infrastructure and also as a managed services in the cloud including:

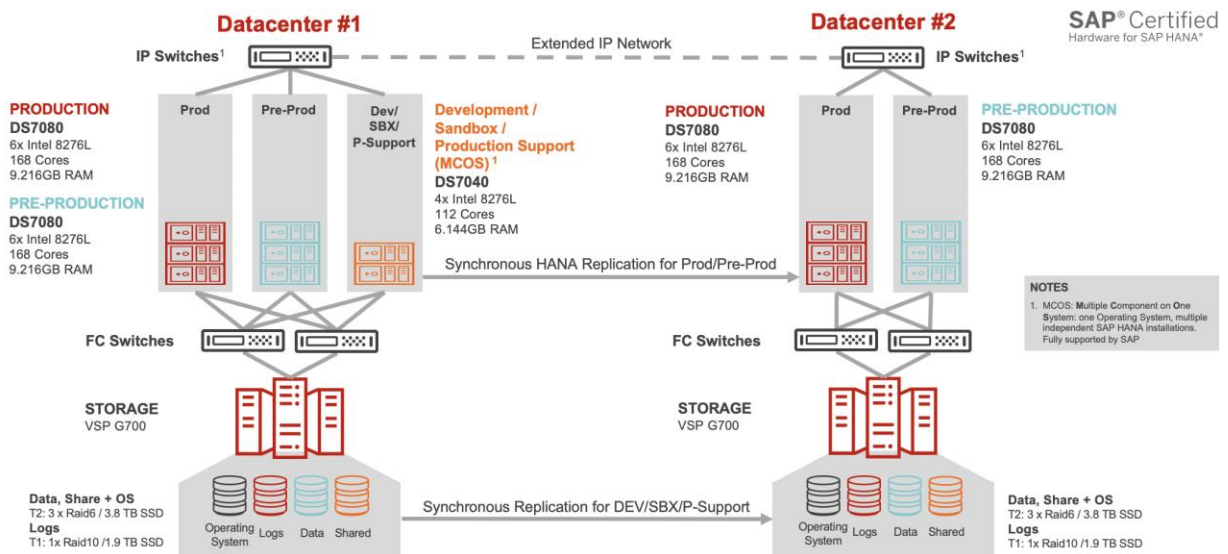
- SAP Basis – SAP's system administration platform, with tools and programs that support the interactions between various systems and that ensure portability of SAP applications across systems and databases
- SAP HANA – the database, the operating system, and the virtual machines (VMs)
- The infrastructure – SAP-certified Hitachi private or public cloud SAP infrastructure solutions
- Hosting and/or cloud – SAP landscapes that are hosted in a customer's datacenter or in the public cloud

Hitachi Solution for the SAP HANA Platform

The Hitachi Solution for the SAP HANA Platform has been designed to help businesses accelerate adoption and achieve faster time to value with their SAP landscape. Hitachi provides purpose-developed converged and hyperconverged solutions for deploying SAP HANA Cloud on premises and off premises. See Figure 2 for an example of SAP HANA Cloud deployment.

FIGURE 2

SAP HANA Cloud Deployment

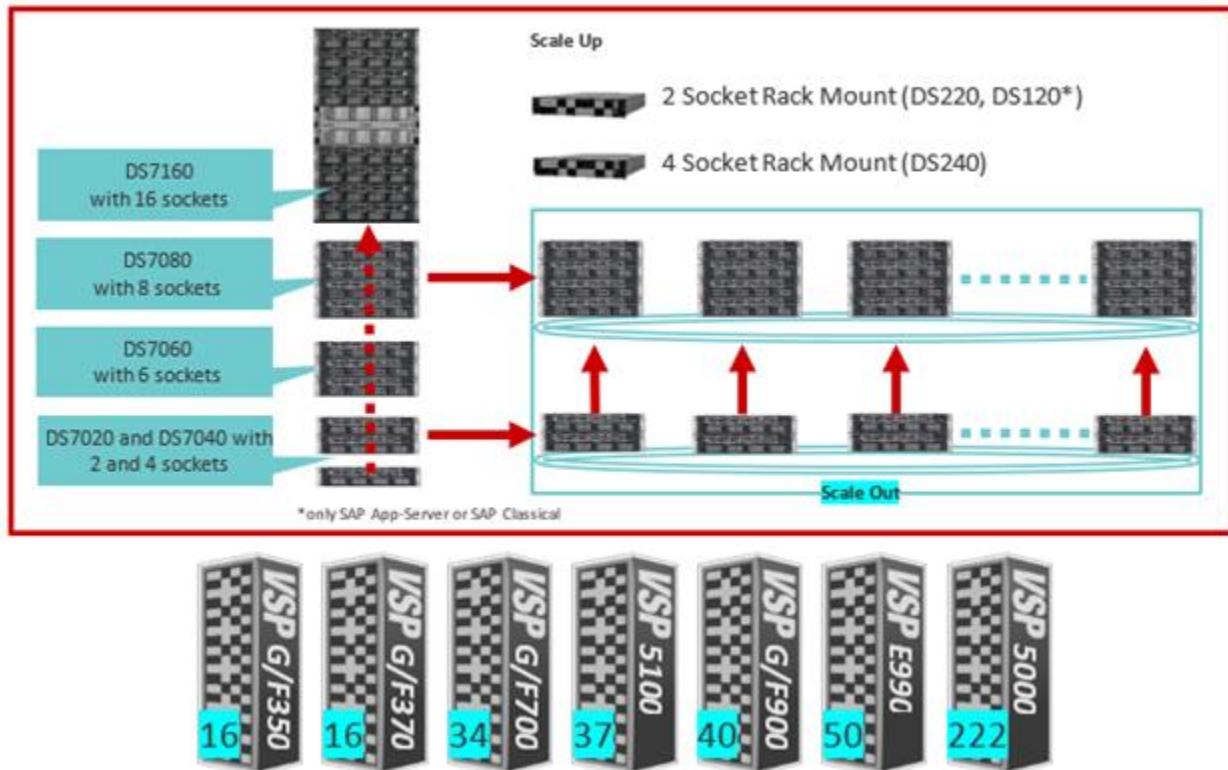


Source: Hitachi, 2021

The Hitachi Solution for the SAP HANA platform is a comprehensive deployment environment providing powerful scalability and flexibility for SAP HANA deployment (see Figure 3).

FIGURE 3

Hitachi Solution for the SAP HANA Platform Overview



Source: Hitachi, 2021

The Hitachi Unified Compute Platform CI for SAP HANA supports scale-up as well as scale-out deployments. It simplifies deployment and helps ensure predictable results by combining enterprise-class storage systems, compute, and networking components:

- **Compute:** This includes high-performance and flexible Hitachi Advanced rack server DS220 and DS240 or scalable and large memory capacity DS7000 based on the Intel Xeon processor.
- **Memory:** The Hitachi platform can scale up to 24TB and scale out to 96TB, providing exceptional performance for large SAP HANA workloads, up to 12TB memory for a VMware virtualized environment, and up to 6TB memory for a hyperconverged SAP HANA environment.
- **Storage:** The Hitachi VSP high-end family (VSP G1500/F1500 and 5000 series) and Hitachi VSP midrange family (VSP G350/F350, G370/F370, E590, E790, G700/F700, G900/F900, and E990) provide granular scalability to 222 HANA nodes. Hitachi storage systems are considered to be among the most intelligent and powerful storage systems in the industry. These devices place maximum emphasis on performance and high availability to satisfy the resilience and availability needs of demanding enterprise applications.

- **Network:** Fiber Channel host bus adapters transport data between compute and storage resources and 10/25/100 Gigabit Ethernet PCI cards that provide LAN connectivity.
- **Operating system:** SUSE Linux Enterprise Server for SAP applications or Red Hat Enterprise Linux for SAP Solutions both provide a robust, enterprise-class foundation.

The Hitachi Solution for the SAP HANA platform is built on Hitachi's decades of experience designing and building systems for real-time data processing performance for SAP solutions. The platform's systems combine enterprise-class reliability with 24 x 7 monitoring. These certified, factory-tested, integrated, and ready-to-deploy solutions developed specifically for the SAP HANA platform help businesses simplify deployment, ensure predictable high-performance results, and keep data-intensive applications running.

SAP HANA Appliance Solutions

Hitachi's SAP infrastructure portfolio includes the Hitachi Advanced Server DS7000 scale-up and scale-out appliance. Hitachi Advanced Server DS7000 x86 servers are based on a reliable, powerful, and modular architecture using Intel Xeon Platinum 8276/8276L processors. They have been built to execute businesses' transactional and analytical workloads as flexibly, securely, and cost effectively as possible.

SAP HANA TDI Solutions

SAP HANA Tailored Datacenter Integration is an alternative deployment approach to SAP HANA appliance. SAP HANA TDI deployments are customized solutions that offer the choice to combine certified SAP HANA servers with certified SAP HANA enterprise storage.

Hitachi delivers the following benefits to an SAP HANA TDI implementation with its storage products:

- Increased performance when loading data into SAP HANA
- Scalable deployments of SAP HANA
- Cost-optimized storage design with the Hitachi Dynamic Provisioning (HDP) feature
- Disaster recovery with minimal performance impact to the production instance

Availability and Data Protection

Hitachi provides ecosystem solutions for SAP HANA, ensuring 24 x 7 availability and data protection with backup, recovery, and disaster-tolerant solutions:

- Supports multiple backup solutions – Veritas NetBackup, Commvault, and Backint for SAP HANA
- Supports multiple SAP HANA DR solutions – SAP HANA System Replication, Hitachi TrueCopy, Hitachi Universal Replicator, and Hitachi Global Active Device (GAD)

Consolidation Opportunity

Hitachi also focuses on the consolidation opportunity for applications and infrastructure that can be achieved during a migration to SAP HANA while eliminating costly silos that may impede productivity. For example, an organization could move from five regional SAP ECC systems to a single global SAP S/4HANA deployment. However, for many businesses, the need for flexibility to respond to continuous growth in applications and data and for system consolidation will likely exceed the current memory limitation for SAP S/4HANA. The Hitachi Solution for SAP Platform DS7160 supporting 24TB removes

the memory limitations and is therefore very suitable for migrating to and consolidation on SAP S/4HANA.

Acquisition Options for More Flexibility

And finally, Hitachi EverFlex Acquisition Alternatives makes it easier to match the best choice for each buying situation:

- Purchase or lease
- Cloudlike pay-per-use consumption-as-a-service subscription

FUTURE OUTLOOK: CONTAINERIZATION

The SAP ecosystem is rapidly evolving, with SAP constantly keeping its customers, server and storage vendors, OS vendors, and ISVs on their toes. SAP has shown to be increasingly responsive to customer needs while taking an Apple-like approach to delivering innovation, which is: we know what's best for you. Generally, the company has been proven right that its innovations deliver distinct new business value. But for its customers, the constant pressure to remain up to speed with SAP and go through the sometimes monumental shifts that the company encourages, if not mandates, can be unsettling. For many of these organizations, SAP is their enterprise software universe, and their business completely depends on it. No surprise then that many in the industry follow SAP's moves with great interest and, sometimes, trepidation.

One important future shift that most businesses would welcome from SAP is containerization. Of course, SAP already has some containerized applications, such as SAP Data Intelligence and SAP Commerce. But containerization is taking over the software world, and SAP is now in the process of reengineering many of its big applications, such as SAP Ariba, SAP SuccessFactors, SAP Concur, and even SAP HANA and SAP S/4HANA, toward containerization. No timelines have been made available, but this will make it easier to integrate these applications and run them both on a public cloud provider and in an enterprise datacenter.

Containerization of SAP applications will greatly benefit SAP customers. Businesses that cannot go to the cloud with their SAP applications, for data compliance reasons, for example, can still run them in a cloud-native way. Also, a migration of SAP HANA from on premises to the cloud will require much less effort, cost, and complexity than is needed today. And once their containerized SAP HANA and SAP applications are in the cloud, customers will be able to simply move them from cloud provider to cloud provider, for example, for reasons of cost or to switch to more performant infrastructure at a provider.

CHALLENGES/OPPORTUNITIES

For Businesses

In this paper, we have addressed some of the challenges that businesses face in the fast-moving SAP market. SAP customers have an opportunity to take advantage of SAP landscape modernization as a key component of their overall digital transformation. The SAP modernization process itself, however, is fraught with many variables, especially when it comes to choosing vendors and/or providers. This paper has already mentioned the many SAP-certified infrastructure vendors that businesses can choose from. Similarly, there are at least half a dozen certified cloud service providers, dozens of managed cloud services providers, and hundreds of regional and global SAP consultants.

This embarrassment of riches can be overwhelming, and the result is that many organizations tend to remain with their primary vendor rather than comparison shop. This is understandable, but IDC would nevertheless urge businesses to investigate. Especially one-stop shopping offerings – hardware, services, consulting, and managed cloud services all from one vendor – can greatly reduce complexity, cost, and disruption during an SAP modernization initiative.

For Hitachi

For the same reasons, Hitachi faces distinct challenges in this hypercompetitive marketplace. All the major server and storage OEMs, including those that operate globally, are offering SAP-certified solutions and services. All the major cloud SPs have SAP-certified IaaS offerings. Even SAP itself has cloud offerings. Nevertheless, Hitachi is a well-established vendor in this market and has spent decades fine-tuning its offerings to what SAP customers really need. Hitachi's value proposition is loud and clear – extremely performant and flexible infrastructure solutions combined with deep consulting and services expertise plus a full-stack SAP HANA support service on premises and in a fully managed cloud. Not every vendor has these pillars so firmly in place, and IDC believes that organizations would do well to thoroughly evaluate Hitachi's entire SAP package.

CONCLUSION

The benefits of the in-memory database SAP HANA and the integrated business solution SAP S/4HANA are rarely disputed. The challenge for SAP customers is getting there, especially since their current business runs on SAP, and migrating the database and the data is a complex, lengthy, and risky undertaking. Moving portions of the SAP landscape to a managed or public cloud will only increase the complexity, even as the ultimate outcome promises simplicity, consolidation, flexibility, and more real-time visibility on the enterprise.

The number of variables that enter into this equation can be overwhelming, and few businesses with a comprehensive SAP landscape will task their day-to-day production team with managing such a migration initiative without third-party support. IDC believes that there's a wealth of support options available to businesses that are ready to make the move to SAP HANA or S/4HANA, perhaps with some cloud elements. But few of these third-party resources are as deeply knowledgeable of the intricacies of an SAP production environment as the certified SAP server and storage vendors. One of these vendors is Hitachi Vantara, which not only provides a vast range of high-performance and secure options for SAP infrastructure but also offers a managed service cloud provider option and an impressive worldwide network of SAP consultants.

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

Global Headquarters

140 Kendrick Street
Building B
Needham, MA 02494
USA
508.872.8200
Twitter: @IDC
blogs.idc.com
www.idc.com

Copyright Notice

External Publication of IDC Information and Data – Any IDC information that is to be used in advertising, press releases, or promotional materials requires prior written approval from the appropriate IDC Vice President or Country Manager. A draft of the proposed document should accompany any such request. IDC reserves the right to deny approval of external usage for any reason.

Copyright 2021 IDC. Reproduction without written permission is completely forbidden.

