Finding Your
Blue Sky

Moving SAP Applications to Microsoft Azure

Microsoft Azure

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Find Your Blue Sky Scenario
3 Ways to Migrate SAP to Microsoft Azure

Make no mistake: The cloud is becoming an integral part of IT services for organizations of all stripes. Why? Because using the cloud allows enterprises to be more service oriented and achieve true digital transformation.

According to recent research by the Harvard Business Review Analytic Services, cloud services accelerate the benefits that IT brings to an enterprise in four essential ways: 1) business agility, 2) increased innovation, 3) cost reduction, and 4) scalability in response to business requirements.

For many, the cloud can't wait

Another reason IT is quickly embracing the cloud is to stem the tide of "business bypass" (also referred to as "Shadow IT" or "Stealth IT"). Business bypass is when a business manager skirts IT to deploy a solution without involving their IT department—or even making IT aware of their decision. This renegade practice, while understandable to some degree, can have a disastrous effect on IT and the organization as a whole. Security concerns, anyone? The fact remains, cloud solutions have made it easier than ever for business managers to procure Software as a Service (SaaS) business solutions that are easy to deploy, customize, and pay for. Typically, on a per-user, pay-as-you-go basis.

Not surprisingly, IT departments need to be more agile and responsive to the businesses they serve internally and to enable solutions more quickly in order to gain or maintain control of the SaaS applications being procured. That means IT departments must embrace SaaS solutions and serve as the gatekeeper to the solutions, ensuring the technology integrates among the businesses on a global scale. All while giving executives a single dashboard to monitor the overall health of their company and its supporting businesses. Put simply, IT needs to be engaged to review cloud solutions to ensure that they meet business needs and adhere to the company's regulatory and security requirements.

The case for cloud providers

Companies that want to provide cloud services to their Lines of Business (LOBs) but currently have an IT skills gap or simply lack the resources should consider using a proven cloud provider. These managed cloud service providers can help minimize "business bypass." Beyond that, they can serve as trusted advisors who deliver technical expertise with objective business acumen.

In fact, according to a recent IDC report, organizations are expected to pay over $122 billion on public cloud IT services in 2018. And those using cloud services today are expected to increase their spending in these services by 34% over the next two years. Implementing a hybrid cloud strategy today will set an enterprise up for the future.

Public cloud services provide options that haven't existed with traditional IT services. For instance, it enables organizations to rent compute, network, and storage resources on a temporary basis with no long-term financial commitments. The cloud lets companies reduce the spend of their precious cash on IT capital and operating expenditures by enabling many IT services to be procured as a low-cost monthly operating expense via the public cloud. Customers can even procure a fully-managed SAP® cloud hosting service as a monthly operating expense, inclusive of application SLA commitments for availability, performance, disaster recovery and more. Some SAP cloud hosting providers even offer the SAP licenses on a rental basis as part of their monthly managed hosting fees in more of a SaaS model.

When hosting mission-critical SAP applications, the private cloud provides a greater level of maturity and stability over a full public cloud deployment today. Therefore, a hybrid cloud hosting deployment can be a more suitable transition to the public cloud for many SAP customers; hosting the production (PRD) landscape in a dedicated private cloud, and the non-PRD systems in a public cloud like Microsoft Azure.

SAP Cloud Hosting on Azure

Companies running mission-critical SAP applications are moving to the Microsoft Azure cloud in record numbers to leverage many of the advantages gained by hosting these applications in the cloud. Some of the advantages offered are the ability to:

- Set up an affordable geographical disaster recovery solution to protect a company's SAP applications from a prolonged outage in the event of an unforeseen disaster
- Create SAP Sandbox and Training systems for short-term usage via the consumption-based pricing that the public cloud offers
- Explore the benefits of SAP HANA. SAP customers considering moving some of their applications to HANA can set up a HANA system as a short-term proof-of-concept to assess compatibility and performance throughput at a much lower cost

Calculating Risk vs. Reward

While the cloud benefits are compelling, existing SAP customers have legitimate concerns regarding the risks of moving their mission-critical applications to the cloud. Whether the customer chooses to support SAP following a migration to the cloud, or chooses to partner with a proven SAP cloud hosting provider, the migration of these applications will require considerable effort to plan for and achieve.

In many cases, a migration to the cloud will also require a re-platform of the operating system and/or database in order to gain the maximum return on investment and lower the total cost of ownership. To minimize the risks and the impact of a required outage during the go-live switchover, extensive planning and testing are necessary.

Given the risks of change regarding an SAP migration, it's strongly advised that customers contemplating this move work with a proven SAP-certified expert with extensive experience migrating SAP into the various public and hybrid cloud architectures being considered. Also, given the mission-critical nature of SAP, there are many issues that need addressed to determine the appropriate cloud landscape. Here are three possible migration scenarios to consider when moving SAP to the Microsoft Azure cloud.

1. Public Cloud – All in, Microsoft Azure

A full public cloud hosting landscape supported in Microsoft Azure can be compelling from a simplicity and centralized management standpoint. Additionally, the public cloud's ability to scale up and down the computing capacity of production systems to support month-end closings, cyclical and seasonal business demands, etc., is attractive.
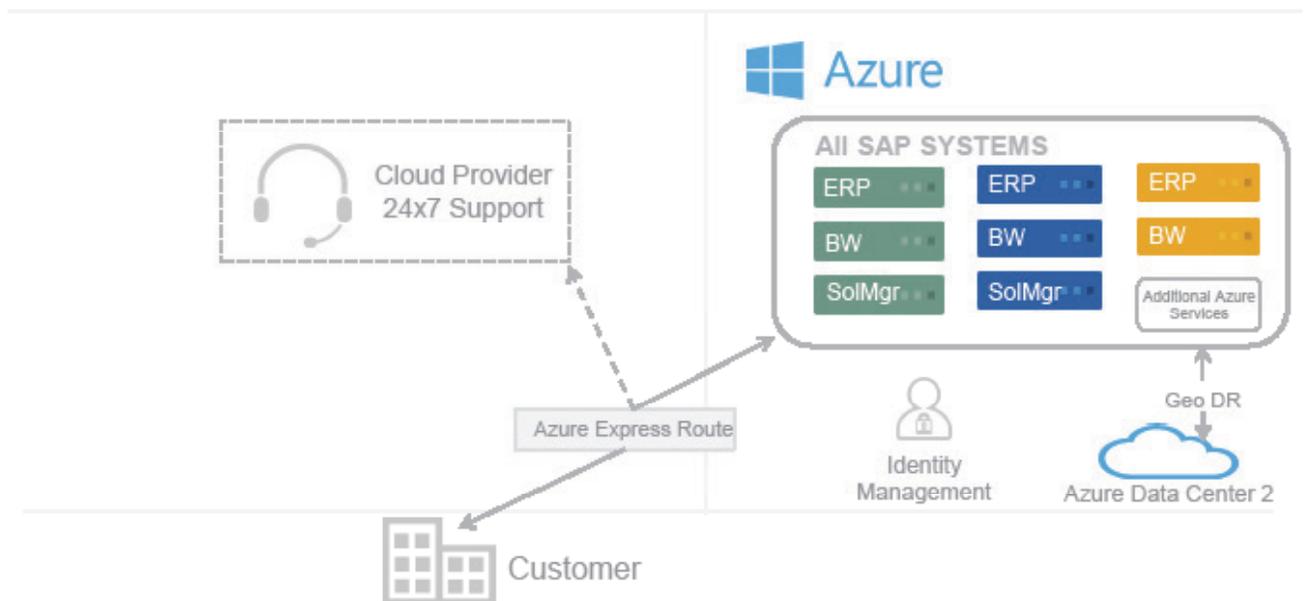

Figure 1 – Full Public Cloud Deployment

However, it's important to complete a cost-assessment of the overall landscape—specifically, those landscapes having high availability requirements. It's also important to evaluate the run time costs of always-on systems for the PRD systems that typically require 24x7 availability, excluding maintenance. Also, the costs for always-on configurations in Microsoft Azure can be pricey. On the flip side, the cost advantages of growing storage requirements could offset these costs with low cost tiered storage options. Customers may also have concerns about putting PRD into Microsoft Azure due to company regulatory and security requirements. Then again, because of continuous enhancements to the Microsoft Azure Security Center these concerns are quickly being dispelled.

The good news is this: Hybrid cloud deployments can provide companies with a more comfortable transition into the public cloud with their mission-critical applications. The pros and cons of hybrid cloud deployments are discussed below.

2. Hybrid Cloud – Utilizing Private and Public Clouds

There are two viable scenarios for deploying SAP applications in a hybrid cloud platform. First of all, a hybrid cloud solution is built by leveraging both a private and public cloud to host the overall SAP landscape. In the case of a private cloud, this could either be utilizing the customer's own on-premise deployment, or contracting with a hybrid cloud hosting provider. These configurations and considerations are discussed below.
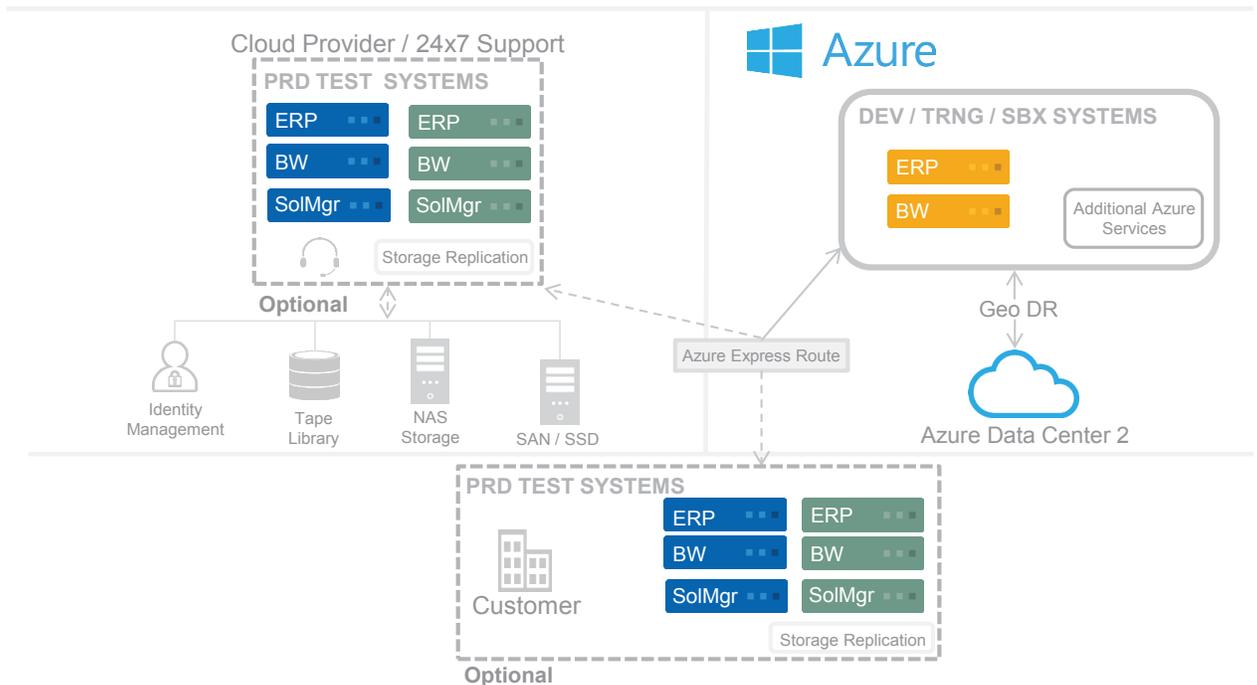
Figure 2 – Hybrid Cloud with PRD and TEST in Private Cloud

The advantages of deploying an SAP landscape in this manner is the ability to quickly set up IDES and SBX systems that can be easily turned off when they are not needed for added cost savings. The downside of not deploying TEST systems in Azure is that the customer cannot turn off/on or scale up/down the TEST systems to realize cost savings. Nonetheless, a key benefit for deploying an SAP landscape in this manner is that system copies and refreshes to the TEST systems can be done quickly within the private cloud. Another benefit is that the TEST landscape will likely be comprised of comparable server and storage hardware; thus providing a purer testing landscape for change control. In either this hybrid cloud option or the following hybrid scenario, customers will want to take advantage of the Microsoft Azure cloud to establish a geographic disaster recovery solution to further protect their PRD systems from an unforeseen disaster.
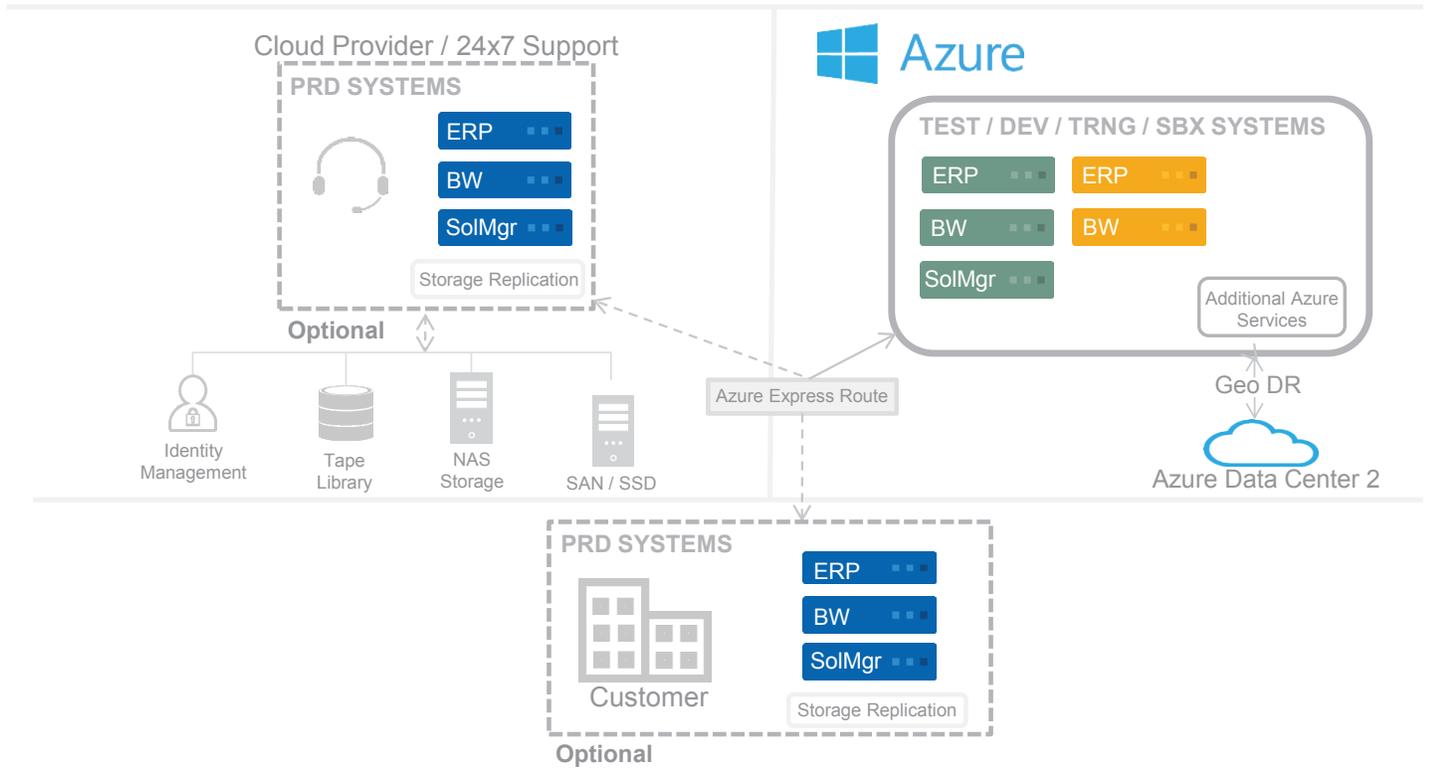
Figure 3 – Hybrid Cloud with PRD alone in Private Cloud

The advantage of deploying an SAP landscape in this manner is that all the benefits of the Azure Public cloud consumption model for every system can be realized, with the exception of PRD. While customers may believe that their non-production systems can never afford to be down, given the option, many SAP customers are warming up to the possible savings that the metered capacity of a consumption based model provides in Microsoft Azure.

At a minimum, customers may be able to take advantage of the ability to dial down the computing capacity of these non-production systems after hours, or over the weekend, as a way to save on their IT spend. One important consideration to take into account is that for large production instances, it may be prohibitive to perform system copies and refreshes to the supporting TEST landscapes residing in the public cloud. One way of working around this is to leverage the PRD copy in Microsoft Azure being continuously updated in support of the geographic disaster recovery solution. In this case customers have a clean copy of the PRD instances already in the public cloud to leverage for System Copies.

Sunscreen recommended... Even on a cloudy day

There's nothing nebulous about it; the cloud is here to stay. And the rewards that public and hybrid clouds provide are real. Of course, the risks are real too. So as you look to take advantage of the cloud in your enterprise, be sure to look for an experienced SAP Cloud Hosting provider with public, private and hybrid hosting experience. The right provider can, after all, keep you from getting burned.

To assess your options for migrating and/or deploying SAP in Microsoft Azure cloud, turn to Freudenberg IT (FIT) the SAP cloud hosting experts.

About FIT

Freudenberg IT (FIT), a global leader in IT services, believes extraordinary things happen when the complex is made simple.

Through its deep knowledge of SAP, FIT helps companies experience more value from their enterprise application investments—and less stress from managing these complicated systems on their own. From consulting to cloud hosting to digital transformation, FIT provides the managed services – and the security – organizations need to run simple and remain resilient in today's increasingly complex world.

Customers choose FIT to improve operations, boost efficiency and reduce overall risks and costs. They stick with FIT because it does the many small things that add up to one extraordinary thing: IT Solutions. Simplified.

Learn more at Freudenberg-IT.com.