SUSE

White Paper

Hybrid Cloud

Accelerate Your Enterprise with Hybrid Cloud Solutions

Accelerate Your Enterprise with Hybrid Cloud Solutions

The hybrid cloud market is growing at an astounding rate. To accelerate the productivity, innovation and agility of your enterprise, you need to simplify your journey and modernize your solutions. That journey might include multiple cloud environments, from private to public to hybrid, as well as on-premise. The results will be the ability to deliver solutions anywhere to gain portability, scale and consistent management.

Like most enterprises, you probably face ongoing pressure to improve the operational efficiency of your IT infrastructure through automation and standardization. These pressures are most likely tied to business-critical objectives around increasing productivity, delivering innovation and improving agility, all while you scale and grow.

As a vital step on the journey to digital transformation (DX), hybrid cloud solutions can help you overcome these challenges. They enable you to scale computing resources seamlessly, while removing the need to make massive capital expenditures to handle small bursts of high demand. The on-demand scalability and overall cost-efficiencies provided by hybrid clouds give you the lowest possible risk of data exposure.

It's no surprise that the hybrid cloud market is growing at a breakneck speed. But migrating to a hybrid cloud environment presents challenges of its own. So, you must simplify your hybrid journey with modernized applications and cloud-native solutions that help you accelerate workloads so you can respond faster to business opportunities.

1 **Gartner Research**
2 **IDC Research**
3 **IDC Research**
4 **RightScale 2019 State of the Cloud Report from Flexera (2019)**

Market snapshot
The global hybrid cloud market is expanding and global spend is rising as the majority of enterprises embrace this technology.

1 in 3
commercial Linux deployments will be in the public cloud by 2022[1]

80%
of AI applications will use cloud-based infrastructure and components by 2022[1]

Almost $65 billion
The enterprise spend on hybrid cloud data services for protection, integration and orchestration, security and compliance, and location optimization through 2022 as a result of DX[2]

Over 80%
of enterprises will prioritize the public cloud experience — such as access to new technologies and intuitive operations workflows — across all their infrastructure platforms by 2022[3]

58%
of enterprises are embracing hybrid clouds[4]

Facing Complexity

While hybrid cloud is not new, there remains some ambiguity around it. A true hybrid cloud environment combines two or more cloud platforms (usually a mix of public and private) into a single entity where access to resources is consolidated and controlled through a single management environment.

With a true hybrid cloud, model data and applications can move seamlessly from one cloud to another, or a single application can span multiple clouds. Unfortunately, there's still the misconception that a hybrid cloud migration has to be done in a single, 'big bang' implementation. On top of that, there is also the belief that, for example, migrating to hybrid cloud could make integration, interoperability and monitoring more complex.

A hybrid cloud that combines a public cloud and a private cloud allows data and applications to be shared between them – essentially simplifying the interoperability and management rather than making it more complex.

Simplifying Your Hybrid Journey

First off, you don't have to adopt an all-or-nothing, 'big bang' approach — this compounds the difficulties and increases the likelihood of failure. The alternative 'evolutionary' approach is much better. This way of doing things:

- makes it easier to manage increasing complexity as it arrives
- allows hybrid cloud to be evaluated within the context of your current environment
- lets you take advantages of business or technology inflection points to move more deeply into a hybrid environment at the most appropriate time
- means you can gradually develop skills and make cultural changes as needed

As part of your hybrid cloud strategy, you need to select the most suitable model, methodology, partner and tools for your enterprise. With the right model — a true hybrid cloud model — you achieve better performance, efficiency, economy and customer experience across your enterprise.

With the right methodologies, you will avoid adding complexity to integration, interoperability, security policies and service level agreements. With the right partner, you will be able to run traditional workloads alongside modernized applications and cloud-native solutions on your choice of cloud infrastructure.

Modernizing Your Solutions

With open source tools and technologies, you can quickly build, deploy and manage containerized or cloud-native applications on hybrid cloud infrastructures. Here are some options.

1. Use a set of common and consistent APIs that can be shared between the public and private cloud platforms in your hybrid solution. These standard APIs serve as an abstraction layer for the underlying cloud services. Applications can then be developed using these APIs for deployment to either the private or public cloud environment, with the option of easily moving them between cloud platforms when required.
2. Utilize hybrid cloud managers (HCMs) to create an extra level of abstraction and provide a unified dashboard for the cloud platforms, effectively masking the underlying cloud infrastructures and simplifying their use. HCMs are usually more focused on cloud than workload. Designed to deliver pre-configured product offerings, they make it faster and easier to get access to cloud services and control usage while providing quota and cost management.
3. Deploy an **application delivery solution**, also known as Platform as a Service (PaaS), to provide a further layer of abstraction. These are workload-centric solutions designed to handle all the heavy lifting involved in developing, deploying and automating the life-cycle management for cloud-native containerized applications.
4. Implement a **cloud application platform** based on Cloud Foundry — using Kubernetes for orchestration and management — to develop cloud-native containerized applications; then deploy them on any platform within a hybrid cloud environment. This 'write once, run anywhere' approach ensures seamless portability between the underlying cloud platforms when it's needed.
5. An enterprise-class **container management solution** that enables IT and DevOps professionals to more easily deploy, manage, and scale container-based applications and services.

Accelerating Your Enterprise

With the **right partner**, you can code and deploy on-demand to streamline workloads and respond faster to business opportunities.

With a simplified hybrid journey and modernized solutions, your enterprise can speed up productivity, innovation and agility, to help you scale and grow. Hybrid cloud solutions help you optimize the performance and operational efficiency of your IT infrastructure while increasing its speed, security, usability and economy.

Ultimately, with the right hybrid cloud partner, you benefit from the unrivaled flexibility of the cloud to deliver solutions anywhere with portability and scale.

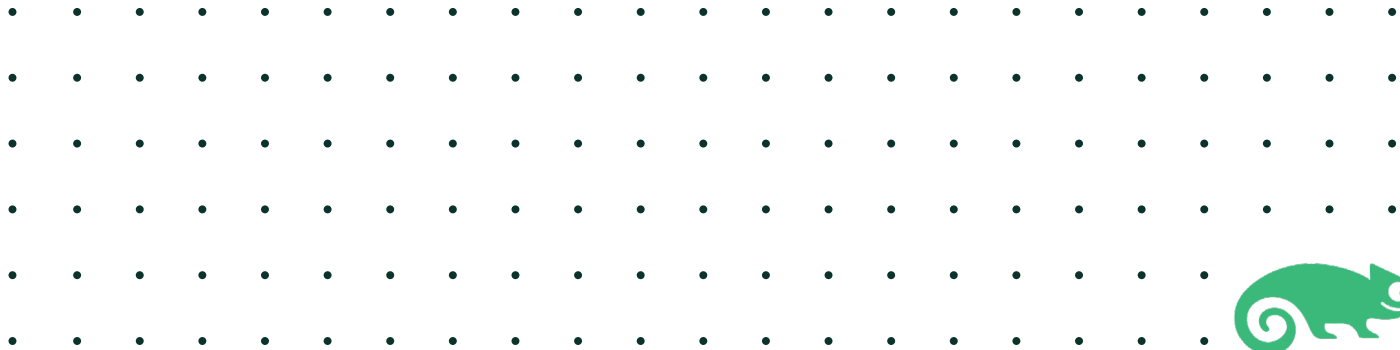**Contact us for a trial, or learn more about our products:**

SUSE Cloud Application Platform

SUSE Container as a Service Platform

SUSE for Public Cloud