

White Paper

Multi-Cloud Management - The Future of Cloud Transformation



Introduction

Multi-cloud is when a company employs more than one cloud platform service for its diverse application requirements. A multi-cloud is generally constituted of a private, public cloud to fulfill a company's end goals. Multi-cloud Management usually uses many different convenient architectures, such as IaaS, SaaS, and PaaS, to achieve business goals.

Multi-cloud has become the gold standard for application deployment. Your application parts spread across many environments lead to fragmentation and other complicated difficulties for efficiently delivering your applications.

To warrant operational consistency for all your applications across cloud and on-premises environments, you require an application delivery solution with a single code. It enables IT with holistic visibility for multi-cloud environments through a single pane of glass. It provides you a uniform and robust security posture while giving an excellent application experience for end-users.

Multi-cloud refers to sharing cloud assets, software, applications, and much more across diverse cloud environments. It strives to reduce the dependence on any single cloud provider.

Multi-Cloud Strategy

For any business using cloud services across various geographies, getting just one public cloud infrastructure provider to fit its needs is difficult. In situations like this, the choice to use a multi-cloud strategy is inevitable. Most companies embrace a multi-cloud strategy to dodge vendor lock-in or to take profit from the best solutions.



The multi-Cloud strategy usually rests on three factors:

- **Governance:** To warrant operational authority, companies want to unite the administration and monitor their IT systems. They want to regulate policies, techniques, and processes and share some tools, particularly those that allow cost governance and optimization across multiple cloud providers.
- **Architecture:** Advanced applications are, by design, built in a more modular way. They can span multiple cloud providers or utilize services from multiple clouds.
- **Sourcing:** The decision may be driven by many factors, including availability, execution, data freedom, regulatory obligations, and labor costs.

What is Multi-Cloud Management?

Organizations worldwide use multi-cloud management to control, govern, and optimize their cloud usage. It is an open cloud platform delivered "as-a-service" to give flexibility to the businesses and facilitate the management of multiple cloud services.

In the multi-cloud environment, businesses can shift their workload on multiple clouds, depending on the importance of data and applications. Nonetheless, multi-cloud management is distinct from the hybrid cloud deployment model. The hybrid cloud is a unified private and public cloud service, extending both the deployment models' advantages simultaneously.

Benefits of Multi-Cloud

Escaping Vendor Lock-in

The concern of vendor lock-in is frequently cited as a significant barrier to cloud service adoption. Multi-cloud management has allowed end-users to shift between various vendors and decrease dependency on a single vendor.

This relative independence enables end-users to bargain with vendors for enhanced pricing and Service-Level Agreements. Additionally, multi-cloud management also allows flexibility in data deployment.

It enables end-users to transfer their workloads to various clouds as per the demand. For the highest independence, end users can choose a multi-cloud management platform to handle complex applications over many varied cloud platforms.

Hence, a multi-cloud management platform reduces vendor lock-in and facilitates seamless movement from one vendor to another.

Enhanced Automation & Agility

In this age of complicated and distinct computing environments, end-users search for smarter ways to warrant maximum resource utilization. This quest carries with its extra management complexities, thereby increasing the demand for agility and automation.

The implementation of a multi-cloud management platform enables companies to deliver suitable levels of automation with agility.

The platform also allows end-users to achieve operational and economic benefits of cloud computing through multiple automation tools, including automated backup & restoration, cross-cloud bursting, auto-scaling, auto-provisioning, and others.

The automation tools give many advantages, such as handling multiple cloud deployment, enabling automatic recovery in an emergency, and business continuity.

Multi-cloud management improves agility across multiple clouds, thereby increasing service levels in the enterprises.

Reaching Right Level of Governance

Policy-driven governance and management are crucial for all businesses. They must ensure effective resource utilization as they efficiently handle and guard any IT service delivery.

The governance systems and laws provide a role-based allocation of IT resources governed by cost, size, and business laws. Furthermore, compliance monitoring enables end-users to shield the virtualized workload with the necessary compliance policies.

There is a growing demand to determine an efficient governance process around managing data while acknowledging regulations linked to data usage and storage.

A multi-cloud management platform allows direct access controls. It solves governance problems such as encryption, financial controls, auditing, and API integration. Moreover, the multi-cloud management platform also allows a seamless movement of data between cloud environments and a business-friendly IT ecosystem.

Cloud computing in 2020 is more sophisticated, going multi-cloud, and expected to become more focused on vertical and sales as the best vendors fight for market share.

Here's a sneak-peak at the cloud leaders in the hybrid market:



When an enterprise takes the lead to infrastructure and solutions from diverse cloud vendors, hurdles emerge. Every cloud service comes with its tools that can raise complexity. Multi-cloud environments demand new management solutions to optimize execution, check costs, and ensure complex mixes of applications and environments, despite being inside the data center or in the cloud.

Here is the list of top Multi-cloud Management tools:



Security in Multi-Cloud

Adopting a multi-cloud platform unlocks the floodgates to several security issues. The more clouds a multi-cloud environment includes, the greater the attack surface.

Indeed, you require to guarantee the security of shared applications and data that now live across multiple clouds. The best way to do this is to combine automated security policies into the multi-cloud management platform.

If you use multiple security tools from different vendors for particular use cases, your safety environment becomes fragmented.

Your security teams will need to exchange data for executing actionable security protections manually. This human intervention raises the likelihood of human error, leaving businesses open to threats and data breaches.

- It needs an increase of federated and uniform identity management and authentication processes.
- Ensuring API traffic exchanges is also required.
- Uniform security policies should implement across the entire multi-cloud environment.
- Security management and authority must exist at both the tenant and the application level.

Conclusion

Multi-cloud is a solution where various clouds from diverse providers are used for specific tasks. To automate the task and optimize expenses, companies require a strong multi-cloud management platform. The growing demand for different applications is pushing the adoption of a multi-cloud management platform among end-users.



Venkata Ramana holds a B.E and M.Sc. from BITS Pilani and MBA from Nanyang Technological University, Singapore. Venkat comes with over 15 years of experience working in Fortune 500 IT companies.

He currently drives Digital Transformation practice at CriticalRiver and passionate about cutting-edge technologies such as RPA, IoT, AI/ML, and Enterprise Performance Management (EPM).

Venkata Ramana | VP & Head - Technology, CriticalRiver Inc

For more information, contact@criticalriver.com



CriticalRiver is a trusted digital technology consulting company with a demonstrated track record of successful technology implementations in areas such as Digital Transformation, Digital Engagement, and Digital Engineering.

We implement and offer consulting services for CRM, Supply Chain, and Integration Solutions by leveraging our skills and capabilities in cutting-edge technologies. We help enterprises simplify, automate, improve, and enhance operations and processes to scale and grow.

We are also technology partners for Salesforce, Oracle, NetSuite for consulting, implementations, managed, and advisory services. Our highly experienced consultants are experts at understanding customers' needs and delivering strategic solutions that leverage the latest technologies and industry best practices.