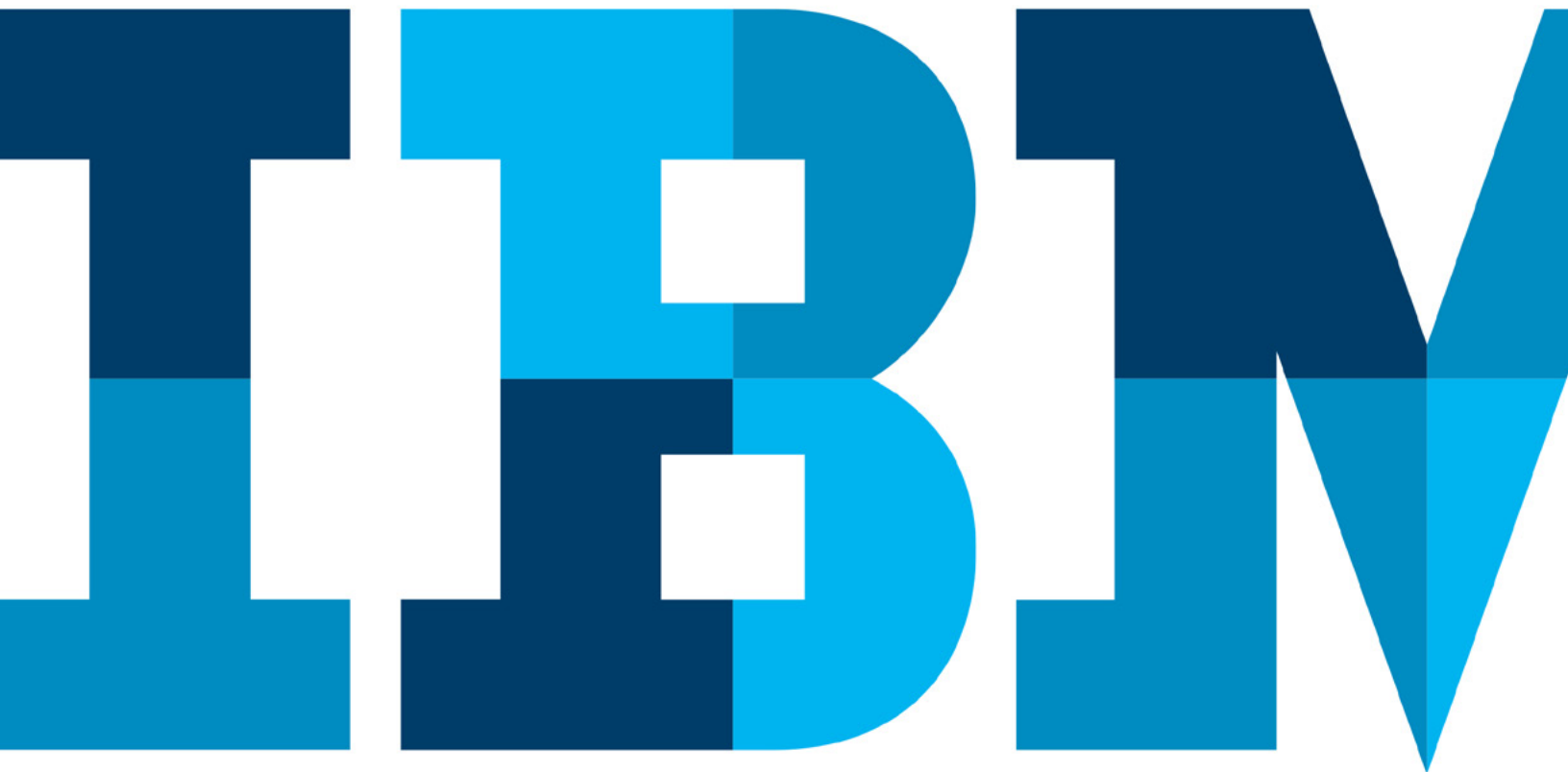# Optimize and secure your hybrid cloud, multicloud environment

See how intelligent operations, application and multicloud management solutions boost agility and flexibility

Contents

→ See the interactive version of this paper on the IBM Cloud website.

Introduction

To meet the unique needs of your business and remain competitive in today's fast-moving environment, you may find yourself adopting infrastructure and solutions from a range of different cloud vendors. In fact, a multicloud world is quickly becoming the new normal for most enterprises.

But managing your cloud-based services and data across multiple providers can start to feel overwhelming. What was once a centralized and effective approach to IT management and governance may be starting to break down. Your new cloud services each comes with its own tools, increasing complexity. Customer satisfaction may be suffering, and costs may be increasing. Multicloud environments require new management solutions that can optimize performance, control costs and secure your complicated mix of applications and environments, regardless of whether they are inside your data center or in the cloud.

Retain visibility and control with smart management tools

Manage proactively with built-in analytics and automation

Solutions with embedded analytics enable a proactive approach to managing the performance and availability of your multicloud and hybrid environments. Integrated self-learning capabilities, including AI and machine learning, power predictive insights so you know about problems as they develop, before they impact your customers. Solutions with self-learning plus automation can streamline management of alerts, events, incidents and problems even further, reducing false alarms and helping resolve actual issues often before significant performance degradations or outages occur.

→ See how cognitive service management solutions from IBM can help proactively unlock timely, actionable insights.

Swiss Reinsurance Co. Ltd. saved 250 work days per month with an IT service orchestration solution that used process automation to eliminate manual tasks and team reaction time.

→ Read the case study

Adopt DevOps methods and tools for high-quality, high-performing applications

When managing applications across multiple clouds, including DevOps and end-to-end application performance management (APM) in your processes positions you for greater agility. To keep pace with the rapid iteration cycles of today's applications, performance monitoring is essential across both development and production environments. Embrace DevOps practices while choosing tools that provide visibility across more delivery models — public or private cloud infrastructure, SaaS and even traditional IT.

Equally important to delivering innovative applications is equipping your teams with skills in iterative methods and management approaches such as design thinking, lean startup, agile development and continuous delivery. A DevOps methodology that combines a more unified approach and these newer techniques with powerful automation to support continuous delivery is critical to achieving success.

→ Learn more about how cloud accelerates DevOps.

→ See best practices for DevOps APM

Optimize application delivery with multicloud orchestration

With a multicloud approach, your teams have the flexibility to develop and deploy applications across a mix of environments. For example, development may be best with rapid access to platform services on a public cloud. When it comes time to deploy, a private cloud may be the best option for some security-sensitive or regulated workloads.

But to optimize delivery, you'll also want to orchestrate all of your cloud environments using a single interface to perform common tasks across providers.

As with most things cloud, open standards-based management tools can facilitate greater flexibility. Also important are self-service features that give teams access to ready-to-use patterns to help accelerate provisioning and deployment and reduce error-prone manual steps. Built-in governance capabilities, including change management and integration into service request and asset management, can further support your efforts to manage the security and compliance of your multicloud environments.

Balance investments with the need for speed by teaming with a services partner

Planning, buying and managing cloud services from multiple vendors brings a level of complexity that can lead to greater inefficiencies and unnecessary costs. Take a look at some options to help streamline your efforts and optimize your ROI in cloud.

Reassess your cloud strategy

When you first ventured into cloud solutions, hopefully you started with a well-thought-out strategy. As your use of cloud expands to hybrid deployment models and multiple cloud providers, a clear road map is even more important. You still must take the time to match workloads, security needs and compliance requirements with the right cloud

environments and providers. Investing in this effort — either internally or with an experienced cloud consultant — can position your developers and line of business teams for the greatest success, while helping your IT team address performance, risk and spending priorities.

Empower employees with IT as a service

When dealing with multiple cloud vendors, the IT as a service (ITaaS) model has emerged as a viable option to simplifying the buying and management processes and returning purchasing control to your IT department. ITaaS enables your employees to procure, orchestrate and manage IT services across multiple vendors while continuing to make sure you are placing the right workload on the right cloud.

When choosing an ITaaS provider, consider whether they use cognitive capabilities to give you a clean line of sight into your usage and costs as well as to enable proactive monitoring and problem resolution. Are they able to offer recommendations on how to better use your resources? Can the provider offer a brokered self-service store to users across your enterprise, empowering them to pick and procure the services they need, while you maintain control through a single system?

→ Discover how to unleash a new way of doing business.

Free resources to innovate with managed services

If you are concerned about a lack of resources or skills for managing the complex hybrid cloud environment, a managed services approach can help. Managed services can cover a range of capabilities across the cloud — from infrastructure to security to resiliency — freeing your teams

to focus on innovation, while your managed service provider takes care of your environment. Look for managed services providers that have expertise and experience with emerging technologies as well as established relationships with leading cloud vendors. With these characteristics, your provider can help you accelerate your ideas to market quicker in an integrated multicloud environment.

→ Learn how cloud managed services can keep data physically and virtually secure.

Since implementing a natural language processing analytics solution on a managed cloud for its call center, an insurance company has realized its highest possible customer satisfaction rating.

→ Read the blog

Next steps

As hybrid, multicloud environments become the standard in the quest for digital transformation, management and security challenges can proliferate without a strategic approach. Customers lose patience with poor performance, and they are even more frustrated, if not angry, when their data isn't protected.

To avoid negative customer reactions, it's imperative that you take the time to evaluate your options for hybrid IT and application management. IBM offers secure, integrated solutions, powered by AI and automation, to give you better control of your operations and application performance, while optimizing your investments and control across your mixed, multicloud environments. Choose IBM to help you realize an agile cloud architecture for your business.

As you think about next steps, consider these key questions:

- Do you think your customers are satisfied with the performance of your hybrid IT infrastructure and the applications running on it?

- Are your IT staff and resources maxed out trying to manage your hybrid, multicloud environment?

- Are you confident that you have optimized your multicloud resources for the greatest ROI?

- Have you considered the value of a services partner with expertise and experience in managing hybrid, multicloud environments?

Check out these resources for more details on IBM Cloud capabilities.

→ Learn more about how cloud accelerates DevOps.

→ See how APM and DevOps integration can help businesses achieve improved app quality, higher customer satisfaction and more.

→ Discover how to unleash a new way of doing business with ITaaS.

→ Read how cognitive service management solutions can help proactively unlock timely, actionable insights.

→ Learn how cloud managed services can keep data physically and virtually secure.

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