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# Cloud and Hybrid Infrastructure Complexity:

Why Multi-Vendor Support is the Answer to Growing IT Management Challenges

**WHITE PAPER**

# Executive Summary

The agility and efficiency enabled by hybrid cloud architectures has become a foundational requirement for digital companies to maintain a competitive edge and accelerate digital transformation. The biggest challenge may be the skills gap that affects every modern IT organization, but identifying the right solutions hinges on identifying the challenges correctly. While costs and skills are important, substantial solutions can be found in modern multi-vendor support services (MVSS) that transcend concerns over skills and accelerate digital transformation.

## Introduction

**Most IT leaders insist the hybrid cloud is critical for maintaining agile and competitive infrastructure, but 90% also say they've run into obstacles in cloud migration and governance and others say costs are restricting their cloud initiatives...**

Although cloud budgets are robust in 2024, not all IT organizations have the same focus. In fact, companies are equally divided among **three distinct priorities,** with one-third of organizations prioritizing security and governance, another third seeking improved scalability, and the remaining third focused on accelerating AI and machine learning adoption.

# 67%

believe that a hybrid cloud strategy is not a stepping stone but a permanent destination.

# 2 in 3

IT professionals see hybrid cloud solutions as a permanent destination for infrastructure

Meanwhile, the decades-long rush cloudward was never about shifting every last megabyte off premises. Indeed more than 90% of organizations use a hybrid cloud strategy to leverage the scalability of the public cloud and
the security and control of the private, and **67% believe that hybrid cloud strategy is the goal,** not some intermediate state.

While the hybrid cloud is here to stay, the talent shortage doesn't have to be. So how best to narrow the skills gap now and prepare for the next round of in-demand skills as AI, Web3, and perhaps quantum computing begin to seep into multiple layers in the cloud stack? A good step forward is to understand why the hybrid cloud is so important to digital transformation and maintaining a competitive edge.

# The Hybrid Cloud as the Norm

The phrase hybrid cloud isn't particularly precise – it's an architecture with some compute in the public cloud and some in your data center or a private cloud. For hybrid architecture to matter, of course, the implication is that you're using resources dynamically, and distributing compute, data, and load optimally across public and private clouds to your advantage.



That public-private combination allows businesses to enjoy the best of both worlds, leveraging the scalability and cost efficiencies of public cloud platforms while enjoying the security and control offered by private cloud infrastructure. That enables optimized workloads and strategic sharing of applications and data across public and private components, while centralizing orchestration and some uniform governance, security, and privacy policies that apply system-wide.

In fact, as cloud adoption was accelerating in 2022, a survey of IT leaders found that **67% of respondents** believe that hybrid cloud strategy is a permanent destination to cloud-native infrastructure rather than a stepping stone to some pure cloud state.

That view makes more and more sense. As businesses in 2023 and 2024 have embraced hybrid cloud strategies, several advantages have emerged as critical to the success of digital transformation, among them **cost optimization, flexibility, security, compliance, and business continuity.**

## 95%
of businesses report cloud skill shortages, delaying projects by an average of five months.

## 61%
of organizations outsource IT functions, driven by hybrid cloud adoption.

# Competitive Advantage

The agility of public clouds combined with the control and security of private clouds enables rapid innovation and scalability, crucial for businesses to stay competitive in dynamic markets. For example, industries like finance, retail, and healthcare are leveraging hybrid cloud solutions to improve customer experience, integrate AI for data analytics, and support new business models, such as omnichannel retail and telehealth. By using public cloud resources for less-sensitive operations and reserving private clouds for critical tasks, businesses can continually fine-tune the **balance of cost, performance, and security**.

# Hybrid Efficiency

Hybrid cloud architectures enhance efficiency through improved resource allocation and scalability. They allow companies to optimize workloads, using public cloud services for peak demand while maintaining essential operations in private clouds. This approach not only saves costs by avoiding overprovisioning but also improves resource utilization. The rise of technologies like containers and Kubernetes is simplifying the management of these environments, further boosting efficiency. Additionally, advancements in AI-driven cloud management platforms are helping businesses predict and allocate resources more effectively.

Moreover, integrating edge computing with hybrid cloud allows businesses to process critical data closer to its source, improving response times and reducing bandwidth usage – an advantage for real-time applications like IoT and autonomous systems.

The bottom line is that deploying IT in a hybrid cloud configuration, and doing it right, is proving to be a key enabler for both enhanced competitiveness and operational efficiency, positioning companies for growth in the evolving digital landscape of 2023 and beyond.



**Hybrid cloud optimizes workloads by balancing public cloud scalability with private cloud security.**

# Skill Gaps in a Hybrid Cloud World

Hybrid cloud environments demand a wide range of technical competencies, from mastery of cloud platforms like AWS, Azure, and Google Cloud, to robust knowledge of cloud security, automation, and orchestration tools. However, the industry is facing a significant skills shortage. Some 95% of businesses report cloud skill shortages, with projects being delayed by an average of five months due to a lack of qualified personnel. This gap in cloud expertise can significantly hinder a company's digital transformation journey, causing setbacks in innovation, security measures, and operational efficiency.

Outsourcing hybrid cloud management is a viable solution for many businesses, providing access to a broader range of expertise and allowing companies to scale their IT operations more efficiently. According to a **Deloitte report,** organizations that outsource their cloud management save up to 20% in operational costs.

Outsourcing can also help businesses mitigate the risk of project delays caused by internal skill shortages. Not MSPs but MVSSs who can manage multiple vendors and technologies for you.. There's a difference. A new breed of MVSS is evolving to mitigate potential downsides, such as reduced control over certain operations and an increased dependency on third-party vendors.

**Businesses that outsource cloud management save up to 20% in operational costs.**

# The Skill Sets and Where to Find Them

No matter who you engage to manage your infrastructure, the core skill requirements are the same.

## Cloud and On-Premises Expertise

The team must possess expertise in both cloud platforms (AWS, Azure, Google Cloud) and traditional on-premises systems. This includes deep knowledge of networking, data center management, and virtualization.

## Multi-Cloud Management

Proficiency in managing multiple public and private cloud environments is essential. This includes orchestration tools (e.g., Kubernetes, Terraform) and the ability to optimize workloads between cloud providers.

## Security and Compliance

In-house teams must ensure that cloud security meets regulatory requirements. This involves expertise in identity and access management (IAM), encryption, compliance frameworks (GDPR, HIPAA), and monitoring tools.

MVSS will often emphasize security and organically have broader expertise in emerging regulations.

## Automation and DevOps

Teams must automate processes and manage continuous integration/deployment (CI/CD) pipelines using tools like Jenkins or GitLab. Infrastructure-as-code (IaC) practices are also essential for consistency across environments.

## AI and Data Analytics

Advanced hybrid cloud setups often include AI and analytics workloads, requiring skills in integrating AI services with cloud platforms (e.g., AWS SageMaker, Azure ML), as well as managing data lakes and processing pipelines.

# The Traditional View of Outsourcing

If you're an IT manager, you're already an expert on the skills gap above – no industry-wide statistical analysis will tell you anything new.

A 2023 study of IT leaders' perceptions of outsourcing staffing in hybrid cloud environments shows a broad reliance on outsourcing, driven by several key factors. A **Deloitte report** highlights that 61% of organizations use outsourcing for IT functions, with hybrid cloud adoption being a major contributor to this trend. IT leaders cite the need to access larger talent pools and accelerate digital transformation.



## The traditional big issues are these:

### 1 Skills Gap

95% of businesses report cloud skills shortages, delaying cloud projects by an average of five months.

**IT leaders are savvy about the tradeoffs that accompany the balance of in-house staffing and outsourcing. But do the assumptions behind these tradeoffs still hold true?**

### 2 Scalability

Outsourcing provides rapid scalability, while in-house teams require long-term investment in training.

### 3 Control

In-house teams offer more control but come at higher costs; outsourcing can introduce integration and security risks.

# The Evolution of MVSS

**The calculus behind the decision to engage a multi-vendor support service continues to evolve. In fact, not only have the measurable benefits improved, but many of the traditional risks and objections are mitigated by the evolution of technology, the IT talent market, and a more enlightened and agile breed of MVSS.**

## The Big Wins

Cost savings are always welcome, but arguably, some of the most striking benefits of MVSS collaboration aren't about labor costs at all. Using Multi-Vendor Support Services (MVSS) to fill critical IT skillsets for setup, maintenance, monitoring, and troubleshooting offers several advantages, particularly in complex environments where different hardware, software, and network solutions from multiple vendors are in use.

Expertise in configuring hardware and software across different platforms (e.g., servers, networking devices, virtualization environments). Familiarity with different vendors' technologies, ensuring smooth integration and compatibility.

MVSS providers offer a single point of contact for setup across various systems, reducing the need to coordinate with multiple vendors. Their engineers are trained to handle diverse environments, accelerating deployments and minimizing vendor-specific requirements' complexity.

**Companies leveraging MVSS reduce IT downtime by 30% and cut operational costs by up to 20%.**

# Maximizing Cost Savings & Efficiency with MVSS

## Scalability and Expertise

MVSS providers often have access to top-tier talent and can scale services as needed. They also bring expertise in dealing with a wide range of cloud environments, ensuring optimal performance and security.

**2**

**1**

## Cost Savings

Outsourcing to an MVSS can reduce the need for a large in-house team, saving on salaries, benefits, and training costs. It can also reduce the cost of maintaining complex infrastructure and providing 24/7 monitoring, translating significant capital expenditure (CAPEX) into more affordable and predictable operational expenditures (OPEX). Outsourcing may **cut operational costs by 20%**, while in-house upskilling can cost $5,000-$10,000 per employee annually.

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## Vendor Management

The business doesn't need to build a team of highly specialized cloud experts. Instead, they manage the relationship with the MVSS, which handles the hybrid cloud's technical logistics, monitoring, and maintenance. MVSS can manage all the routine micro-disruptions – proactive management of hardware and software to ensure performance and security, including patch management and system updates.

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## Focus on Core Business

By outsourcing hybrid cloud management, companies can focus on their core business operations without being distracted by cloud management and maintenance complexities.

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## Maintenance

MVSS delivers continuous maintenance services, such as remote monitoring and preventive updates, which extend the lifespan of IT systems and improve overall efficiency. By consolidating maintenance under one service, you reduce the operational burden and costs of managing multiple support contracts.

**By utilizing MVSS for these critical functions, companies can focus on strategic initiatives while ensuring that their IT infrastructure is maintained efficiently and cost-effectively.**

# The Big Myths

New options are changing the perceptions of traditional outsourcing risks. The market abhors a vacuum and a new generation of more agile MVSS vendors are addressing traditional drawbacks and objections.

These new MVSS's have turned some notions of outsourcing risks and in-sourcing benefits on their head, busting some persistent myths and outdated thinking.

With Web3, and eventually quantum computing looming on the horizon, now is the time to adopt a more evolved strategy toward maintaining the right skills with the right partners, and to reexamine the traditional narratives:

## Training, Upskilling and Staff Retention

**The narrative:**

A significant hidden cost for in-house teams is continuous training, but we need to keep core competencies in-house, and we can't risk reliance on an external vendor.

**The reality:**

It's true that there's a cost attached to continuous upskilling and it's vital to maintain a backstop of in-house expertise. Given the rapid pace of cloud evolution, IT staff must regularly update their certifications (e.g., AWS, Azure) and learn new technologies (e.g., AI integration, edge computing), which can be time-consuming and expensive. But the right MVSS partner can both help upskill your high value talent and fill in when there is a shortage or emergency. With the high demand for cloud expertise, turnover rates for skilled IT staff are high. Companies face recruitment costs, downtime, and potential knowledge loss if key team members leave. Fear of losing in-house expertise in a talent shortage is an argument for an MVSS partner, not against it.

## Integration Complexity

**The narrative:**

Managing multiple vendors and systems in-house increases the complexity of integration, which can lead to unforeseen compatibility issues, inefficiencies, and higher costs for managing multiple systems.

**The reality:**

Typically true. Multiple vendors in an integrated environment translates to silos of data, functionality, and responsibility.

## Compliance and Security Gaps

**The narrative:**

Both approaches need to stay current on security and compliance. In-house teams may struggle with specialized regulatory requirements (like international data privacy laws), while MVSSs may not have industry-specific compliance expertise, leading to hidden legal and operational risks.

**The reality:**

MVSS providers offer advanced monitoring tools that track the health of IT infrastructure in real-time, across all vendor systems. This centralized approach ensures that any anomalies are detected early, preventing costly downtimes and enhancing system performance.

## Downtime, Support Quality, and Immediate Response

**The narrative:**

MVSSs may be spread across multiple clients, so personalized support may suffer unless specified in the contract. On-site teams can often respond faster to specific business needs or emergencies compared to waiting for third-party support.

**The reality:**

Some MVSS vendors may well be stretched thin. However, the newer, more agile MVSS knows how to scale staff and resources worldwide. Conversely, in-house teams could be overwhelmed by complex hybrid environments without adequate tools and training, leading to costly downtime. For some companies with strong MVSS partners, the resolution of the recent Crowdstrike incident was greatly accelerated by that relationship. MVSS simplifies troubleshooting by providing access to multi-disciplinary experts who can address issues across different platforms, saving time and resources. This reduces the complexity of managing multiple support channels and accelerates problem resolution.

## Customization and Control

**The narrative:**

An in-house team allows complete customization and infrastructure control. Organizations can tailor their setup to specific business needs, optimizing for performance and compliance.

**The reality:**

Depends entirely on the vendor. A close MVSS partner who knows your architecture across departments can often bring a deep understanding of your requirements, culture, and goals to any project. But the real takeaway is that establishing a strong relationship with an MVSS partner allows you to outsource, in-source, or collaborate.
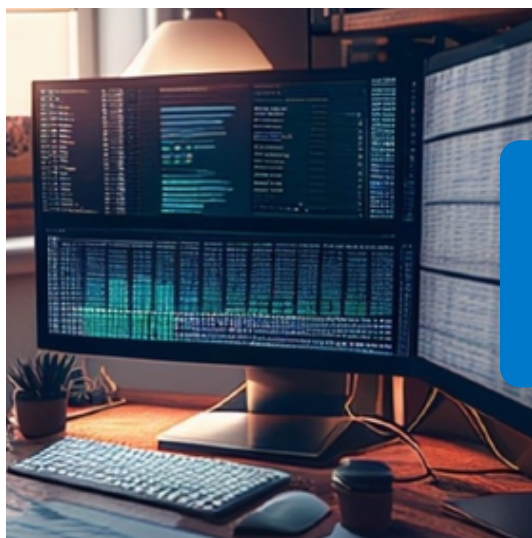
> "Hybrid IT is the future. Businesses that fail to balance in-house talent with outsourced expertise will struggle with agility, cost, and innovation."

# Balancing In-House and Outsourced Talent

A balanced approach to hybrid cloud skill management involves knowing when to upskill in-house staff and when to outsource specific tasks. Outsourcing can be beneficial for handling temporary needs or specialized tasks, while internal teams can focus on developing long-term strategic skills. Combining both strategies ensures that organizations are equipped to handle current and future technological demands without over-reliance on any one solution.

The hybrid cloud is its own challenge, but the next round of in-demand skills – AI, Web3, and perhaps quantum computing – will only multiply that complexity.

Call these new trends transformational, call them disruptive, call them revolutionary – the point is they present more than incremental challenges and will require more than incremental solutions.

Effectively managing hybrid cloud environments requires a strategy that addresses the evolving skill sets needed for success. By leveraging a combination of in-house training and strategic outsourcing, businesses can close the skills gap while maintaining operational efficiency. Evaluate your workforce's current capabilities, assess future needs, and adopt the best mix of upskilling and outsourcing to navigate the complex world of hybrid cloud IT environments.

MVSS consolidates vendor contracts, leading to potential cost savings through negotiated agreements and optimized resource allocation.

MVSS allows businesses to scale their operations smoothly as they adopt new technologies, without being locked into a single vendor's ecosystem.

**Long-Term Growth**

**Cost Efficiency**

**Rapid Scalability**

**Specialized Expertise**

**Risk Management**

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