

The Hybrid Cloud Odyssey

The IT Hero's Guide to Ensuring Hybrid Cloud
Success with Internet Performance Management



Introduction

Setting forth towards a hybrid cloud strategy makes strong sense for your business: Build new services. Adapt to changing market forces. Preserve capital investments. All while leveraging the assets you already have.

But the hybrid cloud odyssey is not without perils and challenges. As your organization's

IT Hero, your quest is to carry your business safely through the three key stages of cloud transition: Planning, Migration and Optimization.

Success depends on protecting business continuity and defending the customer experience at all times.

Internet Performance Management (IPM) — Seeing and managing the network paths that connect your customers and users to your online assets.

Effective IPM makes online services faster, safer, more predictable, and more cost effective. Whether moving or expanding, IPM is a fundamental part of safeguarding your hybrid cloud investments. Without IPM, hybrid cloud migration and operations can fail.

This ebook will help navigate the perils of internet volatility and provide an organized way to think about how IPM can make you an IT hero.



PLANING

Good planning stands between success and failure. For this complex transition, planning means thinking about architectures and approaches for your existing data center and your new cloud assets.



MIGRATION

Even well planned operations fail. A flexible but comprehensive migration process to monitor, measure, and test, makes good planning great.



OPTIMIZATION

Change is the only constant. After migration, long term success will depend on a method to monitor, measure and control your new hybrid architecture.

Planning

New challenges arise in the world of the hybrid cloud. Legends warn of the limitations and differences to data center and private network implementations. Outside the data center, your assets

can take on new forms and dimensions. Caution is essential, as obstacles faced in the planning stage can grind your decision making to a halt, and threaten the very future of your investments.

THE TEMPEST OF CUSTOMER CONNECTION PROTECTION

When it comes to the public internet space between your customers and your services, many cloud companies don't guarantee protection. You and your customers can be left to fend for yourselves against DDoS attacks, outages, hijacks, slowdowns, inconsistencies and more.

You need a sound strategy for IPM, and to plan for a DNS architecture that can recognize issues and take action against public internet dangers.

No one company "owns" the internet; it's a network of interconnected networks. Your online assets are connected to your customers by paths created by multiple network service companies.

The average internet connection uses four to eight network service companies and four steps or hops within each network. Each hop can mean performance, security and cost challenges. A sound IPM solution can provide the data, analytics, and control that will help you manage the paths from anywhere in the world.

THE REDUNDANCY ILLUSION

One DNS provider may appear enough, but what works in the data center isn't the same in the cloud. A second network is the only true way to protect your hybrid cloud architecture investment. Multiple DNSs allow each DNS solution to vie for the fastest response available. When one DNS option becomes unavailable or overburdened, a second DNS can take over to save the day.

Migration

Your planning has prepared you for the new ways your customers and users will interact with your cloud assets. But the

variability of the internet means that testing your approach is critical to ensuring site performance and a safe migration.



As online properties become more complex and content rich, Content Delivery Networks (CDNs) have become increasingly important. But the variability of CDN performance is a challenge for enterprises.

On any given day, CDN performance median latency can vary by 5X. The average CDN price range can vary by 3X, uncorrelated with performance.

Enterprises must look closely at their CDN options and design an architecture to take advantage of this diversity. To do so, you need quality, current information on CDN performance by market, and the power to manage user traffic between CDN partners.

THE PERFORMANCE PITFALL

Internet performance is fundamental to the success of your implementation. If your customers and users cannot reach these new assets, your investments will collapse.

Building and testing architectures, with multiple choices of pathing and destination, is the only way to protect performance problems.

THE SONG OF THE CDNS

Some CDNs perform better than others. But better performing can mean more expensive, and doesn't mean best performing in a given market, nor under changing market conditions.

During migration, monitor and test different CDNs in your key markets, and pick the CDNs that best meet your performance and cost expectations.

THE CUSTOMER CLOUD JOURNEY



Free development environment from a cloud provider

1



Build and deploy on one node

2



Dynamically scale services to grow

4



Test and go live

3



Variable performance over time, by market

5



Test in different markets to different nodes — add nodes to meet performance needs

6



Multi-node architecture to send users to other locations when nodes are unreachable or underperforming

7

Optimization

Internally, you have performance management solutions to optimize networks, equipment, applications and services.

Externally, you need the same level of attention for IPM solutions that will optimize connections, consistency and performance.

SUMMONING THE CUSTOMER EXPERIENCE

Good connections can turn bad quickly. Optimizing the experience and keeping your customer connections alive requires keeping a close eye on all the connections from your key markets to your cloud assets.

You must maintain control at all times and be able to adjust how users connect to those assets, especially when disaster strikes. With proper planning, tested architectures, and vigilant monitoring, you can maintain good internet performance and make certain of a superior customer experience.



FORGING THE FLEXIBLE PARTNERSHIPS

Managing one cloud or CDN integration is challenging enough. Using multiple CDNs can appear increasingly difficult. It's vital to set up a policy-driven architecture that will let you access the right mix of vendors/sites, and select the right asset for the right job.

When your organization embraces the power to select and adjust your cloud partner mix — based on markets and users needs — your journey to hybrid cloud success will be near its conclusion. Your partners are there to optimize your online business and your digital experience.

Conclusion

At the end of the day, you will know your quest has come to its close when your customers and partners have made the journey to hybrid cloud adoption without interruption or disadvantage.

If you protect the customer experience, while delivering your organization to a functioning hybrid cloud implementation with IPM, you will have achieved the success you sought out. Your peers, partners, and customers, will thank you and recognize you as the IT Hero that you are.



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