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One platform to run your hybrid IT estate

Establishing a platform to run, manage and enhance your IT environment with HPE GreenLake and Softchoice

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Introduction

More organizations than ever are moving to the cloud with the goals of paying less in upfront capital costs and making their IT environments and applications more flexible. According to Omdia's most recent survey of 151 companies in North America who use cloud services, 39 percent of their IT budgets will be spent on cloud services in 2023, up from 34 percent in 2021. Nearly half of enterprise applications will be developed using cloud platforms by 2023.[1] At the same time, CIOs expect to use an average of 9 cloud service providers (CSPs) to meet their needs by 2023, up from 7 in 2021. Clearly, cloud computing isn't going anywhere.

It's so fast and easy to deploy applications in the public cloud that it's often hard to match on-premises. Yet moving to the cloud calls for new ways of operating. The skills to do this are in short supply. In fact, according to 451 Research[2], two-thirds of business applications remain on-premises because of cost, data gravity and the interdependencies with other systems that make moving them too difficult. This leaves enterprises within a complex, dual IT operating environment, where they struggle to deliver the applications that support their transformation goals. As a result, many organizations are compelled to deal with a siloed and inconsistent experience across their IT estate, while lacking control and visibility into the costs and risks across the enterprise.

A backflow has even emerged in some organizations that have moved workloads back into the on-premises data center. As early as 2019, IDC predicted that up to 50 percent of public cloud workloads could be repatriated to on-premises infrastructure or a private cloud, driven by a mix of security, performance, and cost issues.[3] This doesn't mean there will be less cloud. 451 Research predicts that 60 percent of enterprises will use flexible, lower-cost IT consumption models by 2023.[4]

Two contradictory trends appear to have taken root: the repatriation of public cloud workloads to an on-premises setting and an increasing number of applications migrating to the cloud. This has given rise to the question:

Should you stay or should you go?

The answer: you can have the best of both worlds.

- One integrated platform to run, manage and enhance your hybrid estate
- A cloud experience everywhere, whether in the public cloud, hybrid or on-prem
- Superior control, compliance and insight across the entire IT environment, wherever workloads and applications may live
- On-demand access to resources and insights for high-velocity innovation
- Control of cloud and IT spend via a predicable monthly cost with no surprises

In this guide, we'll explore how the HPE GreenLake platform represents the best of both worlds, bringing a cloud experience to apps and data, wherever they reside by providing a robust as-a-service portfolio that drives flexibility and speed to market.

You'll learn:

- Why the promise of the cloud hasn't been fully realized for many
- The staffing, financial, infrastructure and security challenges standing in the way of cloud success
- How the hybrid cloud has emerged as a middle ground to integrate on-premises and cloud workloads
- How HPE GreenLake represents a new way to combine public and private cloud resources into one cohesive environment
- How a Softchoice Data Center Technology Review can help you move forward with clear, complete data.

The promise of the cloud

When cloud computing arrived on the scene, it promised major cost reductions and greater simplicity for IT operations. Many experienced such benefits during the initial stages of their cloud journey. This whetted their appetite for more. But as more applications and functions migrated to the cloud, some of those gains diminished. Complexity grew, and organizations realized the need to underpin the cloud with heightened security. They found they needed to find the right balance between the cloud and on-premises and find a simple, cost-effective way to manage everything.

Yet the allure of the cloud remains strong. More so now than cost reduction, organizations cite agility and flexibility as big reasons why they continue to move workloads to the cloud. It is the cloud model that helps them compete and win with easy access to on-demand resources, pay-per-use flexibility and simplified IT operations.

"IDC research shows that customer adoption of flexible consumption-based models is increasing because of the agility, transparency, and simplicity of these offers," said Susan G. Middleton, Research Director, Flexible Consumption and Financing Strategies for IT Infrastructure, IDC.[5]

Despite setbacks and rising costs, very few organizations have returned to a purely premises-only model. They have moved well beyond the lift-and-shift approach to moving applications and workloads from on-premises systems to the cloud. Now they are looking for enhanced application performance, greater levels of integration and for cloud to help them realize their version of success.

As a result, organizations are sending more data and workloads to the cloud. Yet most still deploy them either on-premises or in private clouds. The reasons include security, compliance, performance and other factors. This dual IT operating environment can inhibit their ability to fulfil transformational goals. Instead, many seek ways to achieve the modern cloud experience inside their owned data centers. However, this requires a high level of sophistication and a comprehensive embrace of hybrid cloud environments.

Organizations face challenges on several fronts, including staffing, financial management and infrastructure security.

Staffing challenges

It's no secret we are in the midst of an unprecedented IT talent crunch. Elements ranging from the Great Resignation, stiff recruiting competition and a disrupted pipeline of new graduates make finding and retaining cloud native difficult. In some regions, hyper scalers and leading technology firms get their pick of local engineering talent. Meanwhile, younger generations have higher expectations of their employers – and are more likely to look elsewhere if they're not satisfied. In fact, the average job tenure has shrunk to about 4.1 years, according to the US Bureau of Labor Statistics. Financial service giant Citi reports its average stay at a given job at just 2.8 years.[6]

The problems behind these statistics are showing up on many levels. In many organizations, the IT team lacks the bandwidth to give equal attention to all its responsibilities. Focus on maintaining current operations is a must. This leaves little time left for higher-value initiatives such as the implementation of new applications and game-changing technology projects.

There is also constant pressure to reduce IT staff and reduce budgets. Organizations hope that by instituting self-service measures and provisioning on demand, they can make do with less. However, it isn't feasible to retain fewer personnel to look after the on-premises IT estate while demanding they oversee an ever-expanding cloud footprint.

Financial challenges

For IT departments, financial challenges are nothing new. In bad times, severe strain leads to budget cutbacks. In better ones, there is sometimes a desire to turn to automation in the hope of further rationalizing headcount.

The cloud vs. on-premises split personality within modern architectures is exacerbating the problem. Pushing more applications and data to the cloud can bring about sudden spikes in traffic and monthly outlay. This can make maintaining control of IT budgets more difficult. At the same time, on-premises costs can be hard to contain. Much needed data center refreshes were often postponed as IT teams raced to support a remote work environment in the immediate wake of COVID-19. Two years later, that equipment still needs replacing, often at considerable expense.

This is all occurring against the backdrop of ballooning data storage needs. IDC projects that the digital universe will comprise 7.5 zettabytes (ZB) of data by 2025.[7] About half of that will reside in the public cloud with the rest in data centers. Thus, organizations face surging demands to provision more storage, compute, networking, and memory resources. It is far from easy to provision accurately when traffic tends to suffer from unexpected peaks and troughs. Overprovisioning is often the answer, but it's an expensive one.

Overall, budget pressures have risen, and costs have become much harder to control. In many organizations, it is difficult, if not impossible to achieve transparency today across usage and consumption across cloud and on-premises environments.

Infrastructure security challenges

The staffing and financial challenges noted above exert a severe impact on infrastructure. Organizations experience slow provisioning times for data storage and other resources. This delays projects and adds too much time to the establishment of new revenue streams.

Yet new projects are often the last thing on IT's to-do list. They can hardly manage to keep existing hardware and software maintained and current. In some organizations, the weight of the security burden is such that it is easy to fall behind on routine and essential duties like backup and patch management. With the threat or phishing scams and ransomware attacks looming on a daily basis, it can sometimes seem that IT is fighting a losing battle.

Hybrid cloud emerges

In light of these challenges in staffing, finances, infrastructure and security, how do organizations take their infrastructure and applications to the next level? And how do they achieve that while maintaining the right mix of cloud and on-premises resources?

As they attempt to strike a balance between keeping IT services on premises and moving to the public cloud, hybrid cloud has emerged as a logical middle ground. Combining public and private cloud infrastructure into one cohesive environment, it allows organizations to take advantage of pay-per-use pricing, scalability and flexibility of cloud computing as well as the security of dedicated hardware. 451 Research reports that 57 percent of IT decision makers are considering an integrated—on premises and cloud—environment as part of their overall strategy.[8]

The goal is simple. Rather than managing the cloud and the data center as two separate entities, the hybrid cloud makes it possible to manage the IT estate as a whole. It is a great idea. But how do you get there? Without the right approach, hybrid cloud environments can be complicated and create operational friction that slows down transformation efforts.

Data security and privacy concerns also rank high on the list of the barriers to overcome. According to 451 Research, 68 percent of users see security and compliance as a barrier to public cloud adoption. There are plenty of regulations, for example, that place specific requirements on data maintenance practices. Whether limited by geography and data privacy mandates or archived for a specific period, data can't be spread around cloud environments in a haphazard fashion.

Security, too, can sometimes get in the way of hybrid cloud initiatives. It's not always easy to see and thereby safeguard data that exists on-premises and in multiple clouds from different providers.

Complexity of IT operations, the possibility of unrestrained costs and difficulty mitigating the risks – these are some of the factors impeding the realization of a hybrid cloud strategy. In response, the HPE GreenLake platform offers:

- One integrated platform to run, manage and enhance the entire hybrid cloud estate
- A cloud experience everywhere, whether in the public cloud, hybrid, or on-premises

Introducing HPE GreenLake

There are 3 reasons organizations may benefit from the HPE GreenLake platform.

Enjoy the cloud experience across all IT environments: The platform brings the on-demand cloud experience, resource elasticity and a pay per-use model to on-premises IT.
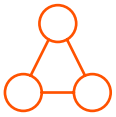
Unify and gain consistency across IT operations: It also allows organizations to integrate that experience across a hybrid environment, including private and one or more public clouds, transforming IT operations into cloud operations.

Get better control and insight: Enhance governance, control and visibility with comprehensive compliance capabilities, along with cost insights and analytics to help optimize costs across cloud and on-premises environments.

HPE GreenLake is a new model that combines public and private cloud into one cohesive environment. It brings the scalable, pay-per-usage cloud experience to applications and data, wherever they reside through a robust as-a-service portfolio. It also provides options for quickly benefiting from a broad portfolio of advanced cloud services such as machine learning operations (ML Ops), containers, storage, compute, virtual machines (VMs) and data protection.

How does it work?

The HPE GreenLake platform delivers cloud services at edge, colocation facilities and the data center, using an integrated software platform—HPE GreenLake Central—to control and operate the entire hybrid environment. HPE GreenLake Central provides IT teams visibility to manage workloads and optimize performance as needed. It offers the ability to monitor performance, plan capacity, provision new infrastructure and enable compliance from a centralized dashboard.

In as few as 14 days and with no upfront investment, HPE states, IT departments can gain cost and compliance insights and simplify management across the hybrid cloud via features such as:

✓ Unified portal for the entire IT estate, translating IT operations into cloud operations

✓ Intuitive consumption analytics for cost optimization by keeping tabs on usage, spend and capacity

✓ Fast provisioning, monitoring, and management of virtual machines across the data center and clouds

✓ Accurate planning for future capacity needs

✓ Mitigate risk with continuous the monitoring of more than 1,500 controls for governance and compliance

HPE's metering functionality allows for more accurate and transparent pay-per-use billing that scales up and down with usage. The HPE GreenLake platform offsets much of the heavy lifting associated with managing infrastructure with 24/7 monitoring.

Tying everything together is a self-service platform that centralizes operations and insights across the entire hybrid estate. This includes a single integrated view into the cost, governance, performance and security status of the hybrid estate, as well as compliance tools and broader cost analytics. All this is designed to help IT teams understand and control costs, manage and prove compliance and ensure they have the right mix of public, private and on-premises workloads for their needs.

The HPE GreenLake platform, then, provides a consistent cloud experience across cloud and on-premises environments. Operations are automated and cloud-native, meaning there's less need for additional training and or to staff specialists in each platform.

CIOs gain visibility and control through HPE GreenLake Central, while their CFO counterparts get the information they need to better control costs. Risk assessment and mitigation are also automated, while application developers can deploy code much faster through point-and-click interface.

In summary, the HPE GreenLake platform can help gain cost and compliance insights and simplify management across your hybrid cloud platform. The benefits are:

30%-40%
Total cost of ownership (TCO) savings over traditional on-premies due to eliminated need for overprovisioning

75%
shorter time to deploy digital projects

85%
less planned downtime

40%
increased IT Team productivity by reducing the support load on IT

Hybrid cloud done right – with HPE and Softchoice

A Softchoice Data Center Technology Review is a funded assessment designed to help you understand your current state in the data center and define the requirements and costs to move ahead with cloud and data center initiatives. Paint a clear picture of your environment based on current state inventory, including server, storage, virtualization, backup and file systems, as well as hybrid cloud solutions.

A Data Center Technology Review helps you answer the following questions:

✓ What is the business impact of having to wait for infrastructure?

✓ How much is overprovisioning costing you?

✓ How do you control the IT environment while keeping it as flexible as possible?

✓ Where will the business need to be in 12, 24 or 36 months?

✓ When should you do a technology refresh?

✓ How are you keeping costs down while bringing new services to market faster?

Is your cloud strategy robust enough for your organization?

Our personalized approach takes an inventory of your existing IT environment, captures usage and performance data and presents the findings in a report that provides recommended steps for your business case to move forward. From there, you're ready to find out how HPE GreenLake aligns with your goals for a flexible hybrid IT environment.

Schedule a Data Center Technology Review or request a guided demo of HPE GreenLake Central.

References:

1   Omdia, Cloud Service Leadership Strategies NA Enterprise–Survey, 2021

2   51 Research, Voice of the Enterprise: Cloud, Hosting & Managed Services, Workloads and Key Projects, 2019

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5   HPE, HPE Greenlake Solution Brief

6   SHRM, Use Offboarding Technology to Turn Ex–Employees into Assets, 2021

7   Active Archive, Active Archive and the State of the Industry, 2019

8   451 Research, Voice of the Enterprise: Cloud, Hosting & Managed Services, Workloads and Key Projects, 2019