WEI INSIGHTS TECH BRIEF

HOW NEXT-GEN HCI CAN SUPPORT YOUR HYBRID/MULTI-CLOUD ENTERPRISE

67% of IT decision makers indicated "infrastructure demands" as a top driver of digital transformation.[1]

Life is full of ironies. Companies have spent the past decade racing to achieve their digital transformation and one of the primary means of achieving this objective has been the cloud. According to the Rightscale 2019 State of the Cloud Survey, 94 percent of survey respondents made use of cloud computing.[2] The allure of the cloud is simple. It is a refuge from the multicomponent complexity of the data center. It is a new paradigm that enterprises adopted in order to rid themselves of the silos created by proprietary technology dispersed across their IT estate. But nothing is ever as simple as it initially seems, and the problem is that there isn't just one cloud. The mentioned 2019 Cloud Survey found that 84 percent of enterprises have a multi-cloud strategy. This trend will only grow as the IDC predicts that 90% percent of global enterprises will be using multiple clouds by 2022.[3] And thus lies the paradox. A multi-cloud state doesn't necessarily equate to multi-cloud interoperability. In other words, enterprises now face the challenge of silos of a different stripe. What companies need is the means to integrate all their clouds into a single ecosphere in order to create a framework that routes workflows in automated fashion amongst them. They need to attain multi-cloud governance in order to define and create policies to improve efficiencies, accelerate deployments and minimize security risks across their entire cloud portfolio.

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Multi-cloud environments are challenging enough by themselves, but things have grown even more complex due to the adoption of another IT architecture in recent years, edge computing. In the rush to migrate everything to the cloud, we discovered an unconcealed truth. The cloud isn't an optimal environment for everything. The practice of uploading all data to the cloud for processing adds too much latency for some mission critical operations. And then there's another universal truth that many companies have had to face—real costs can often exceed anticipatory costs. While OPEX cost modeling has significant advantages over CAPEX, it doesn't always equate to lower expenses. In some circumstances, IT leaders found it was cheaper to run things back on-premises. But that means returning to the complexity of siloed proprietary components again. What is a CIO today to do?

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CLOUD-LIKE, BUT NOT THE CLOUD

It is obvious we can't turn the clock back to the restrictive nature of legacy infrastructure. C-level executives have witnessed the enormous impact that their digital transformations have made in the terms of greater innovation and profitability. So let's talk about a possible solution. Imagine for a moment an IT architecture that offered the following benefits:

- Turnkey operability so that IT personnel can get it operational in rapid fashion without complicated manual configuration
- Freedom from the chains of proprietary hardware
- The ability to easily expand data storage and performance resources
- Eradicate the need for forklift upgrades in the future that cause massive disruption to daily operations
- Simplify administration and minimize the reliance on highly specialized and expensive skill sets

Sounds like the cloud, except it isn't. It's next-generation hyperconverged infrastructure (HCI). HCI is cloud-like technology, but it isn't restricted to the cloud. Advanced HCI solutions today can manage enterprise applications both on-prem and in the public cloud. This is agility on a completely different scale. It's not cloud versus on-prem any longer. No more choosing between public or private cloud. The unifying nature of some of today's leading HCI solutions put you in charge of what goes where. Latency sensitive processes and compliance abiding applications can reside on local infrastructure while other apps can be assigned to their optimum cloud environment. What's more, admins can then manage both their private and public cloud infrastructures through a single management plane, eliminating the necessity to bounce between interfaces and portals to manage everything. Today's advanced HCI solutions can create a borderless IT estate in which silos are finally indeed a thing of the past.

THE VERY ESSENCE OF HCI

Prior to the introduction of HCI architecture, the basic network infrastructure formula was pretty much the same. Purchase a bunch of servers and pair them with an external storage solution while connecting it all together with a network switch. Because they were purchased separately, you had the "benefit" of purchasing best of breed for every component. What you ended up with was a complex mesh of compartmentalized equipment that required training and kept you in proprietary lockdown. What's more, because the implementation and upgrade processes were so involved as well as expensive, enterprises embraced the practice of oversizing their infrastructures for future growth. Then came HCI, the on-premises liberator.

> ***"40% of IT decision makers indicated plans to invest in hyperconverged infrastructure over the next two years."[1]***

HCI software defined the component trilogy of compute, storage, and networking. Hardware was now commoditized, which meant that the differentiating value was now in the software. The beauty of its design was the scale-out capabilities of its node architecture. The need for greater resource capacity or added scalability was accommodated by additional nodes, allowing for incremental growth on demand. The ease of expansion allows IT planners to better right size their environments. While node upgrades are still triggered by product lifecycles like traditional hardware components, each node can be easily upgraded in place during production hours by simply adding the new node and removing the old one. The modular approach of HCI gave medium and large size enterprises the ability to create their private clouds in much the same fashion as the large public cloud providers.

HCI significantly condenses the footprint of your data center or edge computing environment. Any considerable significant reduction in terms of required infrastructure not only decreases the complexity of maintenance and administration, but also provides measurable savings in power and cooling requirements. These and other contributary savings elements combine together to deliver accelerated time to value when it comes to HCI.

HCI CONTINUES TO ACQUIRE GREATER AGILITY

HCI architecture has clearly become the next logical step in the evolution of the data center, but the industry is not resting on its laurels. HCI vendors continue to infuse greater agility and value achieving innovations on a regular basis. Many HCI offerings today are now completely hardware agnostic, giving customers the freedom to choose branded HCI appliances or remain with their preferred OEM server vendor. Advanced HCI now allows you to create heterogeneous clusters that can accommodate mixed environments that include multiple CPU generations, hybrid and all-flash storage and well as multiple hypervisors. This innate freedom of hardware and proprietary neutrality is the foundation of HCI.

Today's advanced HCI solutions are providing more than just hardware proprietary liberation, however. They are now transcending the boundaries of single on-premises environments. HCI is no longer location based as it can now interlace with multiple locations and cloud environments. So not only can you choose your hardware preference, you can select the most optimal cloud for your apps and business needs. HCI now has the potential to deliver turnkey infrastructure for any app at any scale, across any location, whether it be an on-premises data center, computing edge location or public cloud service. This cross-platform mobility gives enterprises the duality to either run enterprise applications in a public cloud without any code change or run native cloud applications on-prem. The choice is up to you

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SEAMLESS ELASTICITY AND MOBILITY ACROSS YOUR HYBRID CLOUD ESTATE

The set-it-and-forget-it simplicity of on-premises HCI remains the foundational building block of today's hybrid cloud based HCI solutions. Some HCI vendors such as Nutanix offer customers the ability to hibernate or resume cloud instances with a single click, giving you greater control of your OPEX cost structure. Utilizing their HCI cluster technology, admins can extend or burst applications and data amongst their various clouds, improving the elasticity of your workload response. Applications along with their licenses can be migrated across any supported cloud in order to maximize application investments. Whether you utilize the cloud as an active part of your everyday network or reserve it for high availability and disaster recovery, you can fully govern the active or anticipatory roles of your cloud services through your HCI management plane at all times.

CONCLUSION

The recent challenges presented by the global pandemic showed how critical the need for greater elasticity really is. This has accelerated the transition to hybrid cloud architectures that utilize the appropriate mix of both private and public clouds. Today's advanced HCI solutions are designed for this new era. In a world without borders, you need an enterprise cloud that is void of borders as well, one that can provide frictionless agility, management simplicity and fractional consumption of services regardless of where they reside. It's a tall order, but one that HCI is innately designed for.

TALK TO WEI TODAY

Contact the infrastructure experts at WEI to find out how you can reduce IT complexity and simplify your approach to hybrid and multi-cloud management with Nutanix.

Sources:

1 IDG Research commissioned by WEI, January 2021.

2 "RightScale 2019 State of the Cloud Report from Flexera." https://resources.flexera.com/web/media/documents/rightscale-2019-state-of-the-cloud-report-from-flexera.pdf

3 "IDC Expects 2021 to Be the Year of Multi-Cloud as Global COVID-19 Pandemic Reaffirms Critical Need for Business Agility." IDC, March 31, 2020. https://www.idc.com/getdoc.jsp?containerId=prMETA46165020

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WEI is an innovative, full service, customer centric IT solutions provider.

Why WEI? Because we care. *Because we go further.*

At WEI, we're passionate about solving your technology problems and helping you drive your desired business outcomes. We believe in challenging the status quo and thinking differently. There are a lot of companies that can take today's technology and create a great IT solution for you. But we do more. We go further. And we have the customer, vendor and industry awards to prove it. WEI is a premier technology partner, who always puts our customers first while providing the most innovative solutions for over 30 years.

WEI Dedication meets innovation.

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