

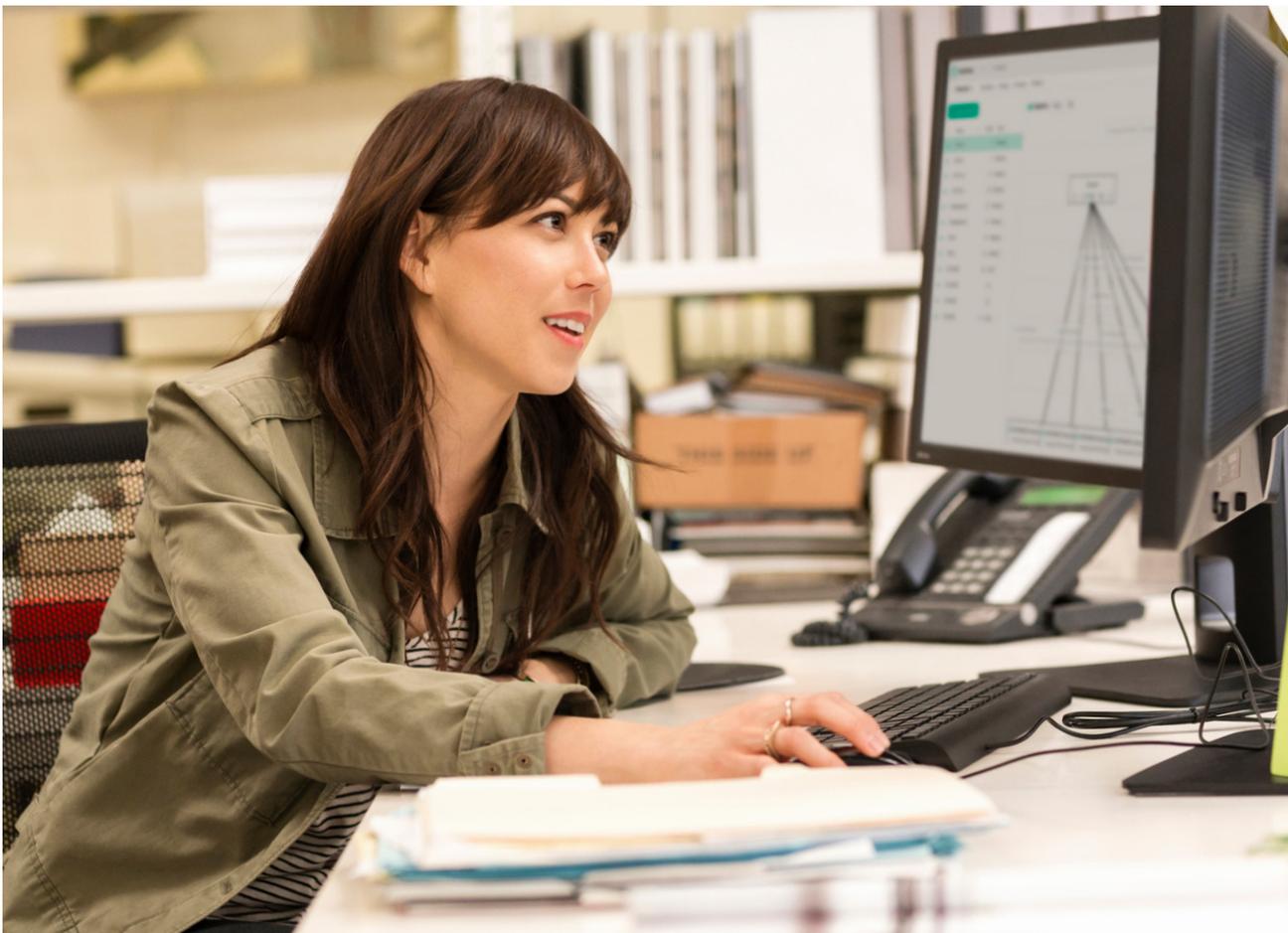


Hewlett Packard
Enterprise

vmware®

HPE and VMware address multi-cloud requirements

How pay-as-you-go infrastructure services are helping businesses build secure, flexible, and operationally efficient private/hybrid clouds



In association with:



Given the scale and diversity of the business applications companies now host within cloud environments, it is no surprise that there is no single cloud able to fit the bill. So it is inevitable that many organizations (with or without the approval of the IT department) have ended up using multiple types of cloud simultaneously.

Research firm Gartner predicts that “multi-cloud” usage will become a common strategy for 70% of organizations by 2019 (up from 10% in 2017) as they seek the best platform to meet their IT service delivery needs in the most flexible, cost-efficient way. IDC too believes that rapid adoption will bring significant benefits, suggesting that 86% of enterprises would need a multi-cloud strategy to achieve their business goals.

HPE and VMware manage multi-cloud environments

A multi-cloud approach offers significant advantages for the enterprise, but managing a complex mesh of public, private and hybrid clouds and on-and-off-premise systems can be difficult, expensive and time consuming. Those are particular issues for organizations without the expertise or man hours to monitor and control the virtual applications and services they run, or the money to spend on building out internal data center infrastructure to host them.

By offering a different way to buy and provision an integrated hyper converged architecture, HPE and VMware can help those customers streamline their operations and meet tight total cost of ownership (TCO) metrics by tying hardware utilization more closely to capacity usage.

The two companies have joined forces to deliver on-demand IaaS bundles of server, storage, networking, virtualization and operating systems, packaged into “private cloud as a service” or “everything as a service” platforms, optimized to support business critical applications and services.

HPE GreenLake Flex Capacity provides cloud-style, application specific bundles of on-premise infrastructure available under a pay per use model. Underpinning HPE GreenLake is HPE’s composable infrastructure — HPE Synergy — which integrates compute, memory, storage and network infrastructure into a single chassis controlled by an intelligent management software interface (HPE OneView). HPE Synergy uses



“By delivering jointly optimized hardware and software, the HPE VMware alliance is able to simplify, unify and automate architecture, accelerating the move from infrastructure to platforms. This places IT at the center of the digital transformation initiative, enabling it to scale and flex with the changing demands of the business, while taking advantage of technology accelerators and innovation. The result is sustained competitive advantage delivered through an aligned and agile organization.” – IDC

VMware’s Software Defined Data Center (SDDC) virtualization platform — built on virtual compute (vSphere), storage (vSAN), and network (NSX) components — to provide a consumption-centric, cloud-based solution (read our separate management briefing [“HPE and VMware drive SDDC innovation”](#) to learn more about the converged server, storage and network architecture HPE Synergy includes).

Single point of technical support

Research shows that operational efficiency and integrated tooling are key requirements in a multi cloud environment. The HPE Synergy system management solution (HPE OneView) is closely integrated with the VMware vCenter platform, to reduce complexity. The integrated systems management tool approach from HPE and VMware, combined with readily available application programming interfaces (APIs), is essential to get the best out of multi-cloud by making it easy to control different types of cloud platform and workload from a single administration console.

The combination of HPE Synergy and VMware SDDC also provides a single point of integrated support for the full range of hardware and software solutions included. Over the last 18 years, HPE and VMware have evolved a global, strategic alliance committed to joint strategy, investment and engineering programs which enables the two companies’ solutions to work together more effectively with reduced set up time and operational overhead. A unified point of contact for VMware solutions is provided by HPE to reduce the time it takes to resolve support issues, with both firms’ engineers trained on the others’ hardware and software solutions.

IDC has highlighted the delivery of support across a single infrastructure stack as a critical element in the successful completion of enterprise digital transformation initiatives, recognizing the HPE and VMware alliance as well placed to deliver that support, whilst guiding IT departments through the deployment and management process.

Applications benefit from multi-cloud approach

Not every enterprise application will move into the public cloud due to the individual performance and data security requirements that inevitably vary from one organization to the next. But having grown more comfortable with the on-demand, pay-as-you-go service delivery model, most public and private sector organizations are now identifying additional workloads that can be migrated into either off-premise hosting infrastructure owned and operated by third party cloud providers, or provisioned by their own IT department within on-premise private or hybrid cloud environments. Many are also looking to host different application layers in different facilities, such as application instances in private or public cloud, but with the data tier in traditional IT facilities, determined by integration with other corporate systems, and governance and performance requirements.

Businesses are also spinning up increasingly compute-intense workloads able to support artificial intelligence (AI), machine learning, speech/language recognition and big data analytics functions. Others are using multi-cloud to facilitate backup and recovery nodes or to build test and development platforms designed to prepare applications for live deployment.

Flexible hosting options for Microsoft Exchange, SQL Server and Oracle databases alongside digital workspace initiatives (based on VMware Workspace One and Horizon) can also pay dividends in a multi-cloud model. And elsewhere there is a new generation of services designed specifically for the Intelligent Edge and Internet of Things (IoT) device management.

Billions of connected sensors, monitors, driverless vehicles, utility meters, media players, white goods, smartwatches, buildings, cameras and all manner of digitally enabled items with embedded software and network capabilities are expected to produce and transmit vast volumes of data back to company data centers, for example. Research company IHS estimates there are already 20bn IoT devices in use across the globe, with forecasts of 50bn by 2020. Organizations involved in the analysis, processing and storage of all that information will need flexible infrastructure capable of quickly scaling up to meet that demand.

HPE GreenLake pre-configured for mission-critical workloads

Ensuring the interoperability and communication needed to make sure all of those applications run efficiently within multi-cloud environments is no simple task. This is the prime reason why HPE and VMware have purpose built specific HPE GreenLake solutions to support common workloads.

Those optimized for delivery under the HPE GreenLake model include Hadoop big data analytics, Commvault backup and the EDB Postgres open database. HPE GreenLake for SAP HANA also provides on-premise HPE appliance and SAP-certified hardware, operating system and services to run the company's relational database management system, whilst the Edge Compute solution is designed to simplify the provision of Internet of Things (IoT) infrastructure and managed service platforms.



“With increasing business dependence on the integration of IT infrastructure into a single stack of server, storage, networking and management, choosing a technology partner with professional support services covering the entire stack is key.” - IDC

Thirteen pre-packaged, pre-priced HPE GreenLake Flex Capacity infrastructure modules will shortly be available worldwide, based on different combinations of the HPE Synergy chassis, HPE ProLiant Gen10 blade servers and three different types of storage (SATA, SAS and SSD).

This will give IT departments a library of ready-made infrastructure options capable of meeting specific application needs, which can be quickly ordered and deployed when the need for additional capacity to support fast service delivery and commercial expansion is urgent. But they also retain the flexibility to alter hardware and virtual resource configuration to tweak application and service performance where needed.

All of the HPE GreenLake packages are backed by professional services, advisory, training and monitoring provided by HPE’s Pointnext services division to help organizations understand and deploy the full potential of each solution. And it is HPE Pointnext that provides a single point of contact for technical support covering all the base hardware and software, including HPE Synergy hardware and software, as well as VMware’s SDDC virtualization platform.

Security issues

With HPE GreenLake, IT departments can also be certain that the underlying infrastructure has been designed to protect applications, systems and data from unauthorized access (see [“HPE and VMware drive SDDC innovation”](#) to find out how HPE Synergy’s composable architecture has been deliberately constructed to strengthen data center defenses through embedded security hardware and software).

Data security is a big problem for public and private sector organizations facing a growing volume and diversity of threats from multiple sources. Mobs of hackers are primarily comprised of cyber criminals intent on stealing sensitive commercial or private data for their own purposes, but more and more incidents also involve state sponsored hackers and other factions committed to attacking business systems to cause maximum disruption.

New privacy laws in the form of the European Union's General Data Protection Regulation (GDPR) will also amplify the penalties that go hand in hand with a serious data breach, giving national regulators the power to fine companies up to €20m or 4% of their annual turnover.

Some organizations will always need to store and process certain information either on-premise or in local data centers to meet data sovereignty laws and industry governance requirements which some public cloud services often cannot guarantee. In those situations, private and hybrid cloud infrastructure is likely to offer the best solution, whilst IT managers will inevitably look for trusted technology suppliers and hosting providers able to demonstrate compliance with the GDPR and other regulations to minimize their risk.

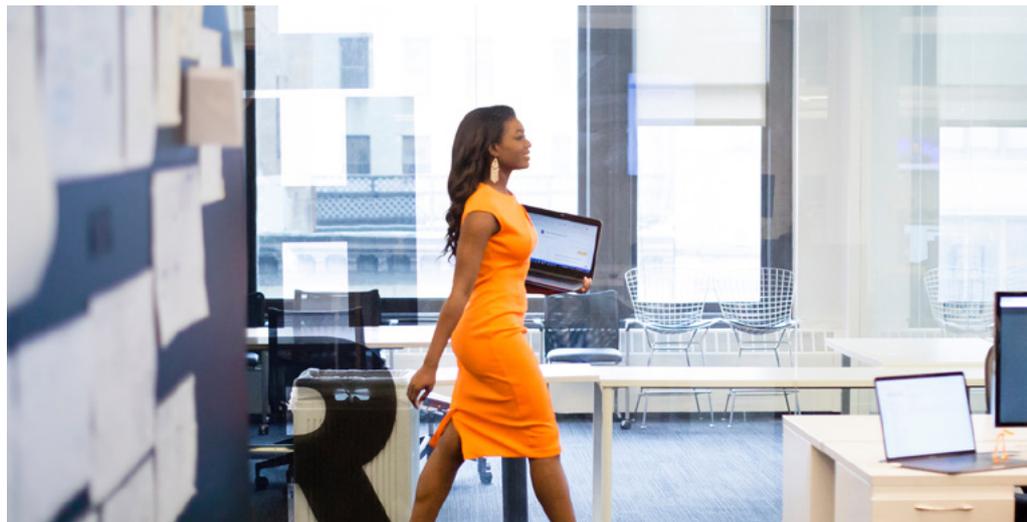
In its digital transformation survey conducted in 2016, IDC found that improving security and compliance was the single biggest challenge for 33% of data centers as the threat landscape and data protection regulation evolve faster than IT professionals can keep pace. By implementing data center infrastructure from certified suppliers like HPE and VMware, IT departments can be certain not only that the underlying hardware and virtualization layers offer the best protection available, but also that the applications and services which run on top of it are regularly updated with the latest security patches.

Conclusion

Learn more at:

www.hpe.com/partners/vmware

Multi-cloud is here to stay. But IT departments need capable platforms to make sure that the data, applications and services sourced from multiple providers simultaneously are properly secured and efficiently managed if they are to get the best out of all the public, private and hybrid hosting options available to them.





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About Hewlett Packard Enterprise

Hewlett Packard Enterprise is a global technology leader focused on developing intelligent solutions that allow customers to capture, analyze and act upon data seamlessly from edge to core to cloud. HPE enables customers to accelerate business outcomes by driving new business models, creating new customer and employee experiences, and increasing operational efficiency today and into the future.

Learn more: hpe.com

About VMware

VMware software powers the world's complex digital infrastructure. The company's compute, cloud, mobility, networking and security offerings provide a dynamic and efficient digital foundation to over 500,000 customers globally, aided by an ecosystem of 75,000 partners. Headquartered in Palo Alto, California, this year VMware celebrates twenty years of breakthrough innovation benefiting business and society.

For more information please visit: <https://www.vmware.com/company.html>

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