



HPE GreenLake for Private Cloud Enterprise: Delivering Real Value Across the Hybrid and Multi Cloud Ecosystem

Why HPE GreenLake for Private Cloud Enterprise is Ready to Transform the Private Cloud Experience

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I. Introduction & Overview

HPE GreenLake for Private Cloud Enterprise Delivers Automated, Flexible, Scalable, and Fully Managed Enterprise-Grade Private Cloud

Today hybrid cloud reigns triumphant as the preeminent cloud model for virtually all enterprises. Over the last decade IT decision-makers embraced the mantra ‘cloud is the answer, what is the question?’ driving broader demand for public cloud services. However, times are changing, and some organizations are even looking to move workloads back on-premises onto their private clouds in what has become known as cloud repatriation. This trend is growing their hybrid cloud footprint by expanding a mixed computing environment where applications are run using a combination of computing, storage, and services in different environments, encompassing public clouds and private clouds, including on-premises data centers or edge locations.

In 2022, HPE launched HPE GreenLake for Private Cloud Enterprise, ushering in a reimagined private cloud that provides a cloud-native experience as a managed service to power an organization’s hybrid strategy, regardless of location. The managed service solution deftly aligns with the full-fledged ecosystem-wide transition to hybrid cloud and multi-cloud models including cloud repatriation.

HPE GreenLake for Private Cloud Enterprise answers the enterprise clarion call for the modern private cloud experience, growing out of mounting customer concerns related directly to application entanglement, control, cost, data gravity, and predictability. Modern private clouds have progressed remarkably in terms of supporting cloud-native applications and leveraging CI/CD pipelines, resulting in a new level set of uncompromised experience between the private cloud and public cloud spheres. Now we see enterprises fully committed to modern private clouds as integral to their hybrid and multi-cloud strategies.

Additionally, HPE GreenLake for Private Cloud Enterprise is delivered on site production ready, accelerating the innovation timeline and growth phases, which only require a statement of work and capacity update. As a result, getting a cloud built, delivered, and expanded according to actual need can prove a simple, rapid, and reliable process.

The HPE GreenLake for Private Cloud Enterprise service is purposefully designed to fulfill burgeoning enterprise demand for pay-per-use private cloud services with cost transparency and TCO benefits. To meet this fast growing demand, HPE GreenLake for Private Cloud Enterprise offers a unified experience that combines modular infrastructure and software which supports the self-service deployment of bare metal, virtual machine, and container services.

II. Private Cloud Challenges

Historically traditional private cloud solutions have proven unsatisfactory due to a variety of factors. This includes their complexity, manual-bound processes, insufficient visibility and governance, and narrow approach that limits scaling to fulfill the requirements of enterprises. We identify the following major challenges as potential barriers:

Adapting Financial Models to Cloud Era. Economic headwinds are a driving force for enterprises to align their financial models to take full advantage of cloud economics, including accurately predicting their capacity usage for more cost-efficient operations. IT budgets are under more intense scrutiny to decrease spending and show more value. Plus, organizations are looking for new ways to fund innovation, do more with less through evolving consumption models, and leverage embedded managed services to reduce reliance on expensive skill sets and drive more innovation. Organizations are also finding an increased need for cost transparency so that IT and business teams have a shared understanding of how better cost management can improve business outcomes as well as advance digital transformation initiatives that can reduce costs elsewhere.

Overcoming Cloud Complexities. IT decision-makers struggle with issues that spread complexity across their hybrid cloud environments such as data gravity, fulfilling security and regulatory requirements, and the intricacies of administering silo-bound applications. Too often the enterprise cloud journey is stalled at identifying the private cloud solution that can interwork optimally across their edges, data centers, colocations, and clouds.

Minimizing Skill Shortfalls. Enterprises are grappling with chronic skill shortages in both attracting and retaining IT talent, exacerbating their ability to optimize their private cloud capabilities. The lack of IT expertise poses a daunting challenge for businesses as they seek to prioritize and align private cloud plans with their overall digital transformation missions.

Administering Silo-bound Workloads. Workload silos make it difficult for IT teams to administer cloud and overall operations as well as respond to evolving business demands. Siloed data and applications undermine objectives to build end-to-end processes while siloed teams impede cross-function collaboration and time to market acceleration.

Adopting End-to-End Security. Enterprises are struggling with implementing end-to-end (E2E) security across their hybrid clouds as we see the rate of cyberattacks at an all-time high. Some of the top security threats in hybrid environments include a lack of security visibility, controls, skills, and a shared responsibility model that extends from edge to datacenters to cloud. While it's easier to outsource operations, enterprises cannot outsource risk. As a result, attaining the cybersecurity skillsets needed to efficiently administer E2E security needs such as data protection, file sharing, and integrating remote workers is an ongoing resource challenge for many enterprises.

Avoiding Capacity Errors. IT decision-makers need the ability to optimize capacity planning to avoid errors that can result in too much spending on overprovisioning capacity as well as any upgrades, fixes, and penalties that stem from underestimating capacity, all of which can disrupt business processes and outcomes.



What the Market is Looking For

Fulfilling key private cloud challenges, such as services flexibility, minimizing hybrid cloud complexity, self-serve agility, deployment versatility, TCO gains, sustainability, and full asset and cost visibility, are key drivers in enterprise goals to modernize their hybrid cloud and multi-cloud environment. Key considerations include:

Minimizing Cloud Complexity. Enterprises are increasingly interested in collaborating with managed service partners to help minimize the complexities of managing the underlying cloud infrastructure through ThinOps capabilities, including system planning, installation, provisioning, hardware/software maintenance, operations, capacity planning, and support.

Self-Serve Agility. IT decision-makers are broadening their interest and familiarity with self-serve tools that ease the entire cloud experience and produce tangible benefits such as decreasing administration burdens, reducing service support costs, streamlining IT infrastructure and operations, and speeding time to value.

Deployment Versatility. Enterprises are looking for greater flexibility to support their application modernization efforts. As they transition from legacy architectures that were typically built for only one workload, the ability to seamlessly deploy virtual machines, containers, and bare metal resources from a common pool of infrastructure can deliver greater agility and speed. Through such deployment versatility, they seek price-performance advantages over their legacy private cloud architecture and maintaining optionality in their cloud journey which avoids vendor lock-in and helps achieve cloud-scale agility across all their operations and business processes.

Bolstering Developer Experience and Time to Value. We see enterprises embracing IaC, REST APIs, and cloud command shells to ease the programmatic provisioning of infrastructure and integration with existing DevOps capabilities. This approach can accrue benefits such as speeding application development and the automation of CI/CD pipelines.

TCO Benefits. Enterprises are focused on decreasing the costs associated with overprovisioning and technology updates to reduce total cost of ownership (TCO). These TCO benefits directly link to aligning IT costs to business outcomes by taking advantage of cloud flexibility and economics.

Sustainability Progress. Organizations are implementing and expanding their sustainability initiatives on a global basis. This trend is key to assuring these sustainable practices improve their organization-wide environmental, human, and economic outcomes. We find organizations are looking for their hybrid and multi-cloud strategies to make tangible, measurable progress, including attaining science-based targets (SBTs) and developing ways to reduce waste and responsibly managing the lifecycle of their products.

Accommodating Subscription and Consumption Models. To accomplish agility across hybrid/multi-cloud implementations, enterprises are expanding their preference for using subscription and consumption models. Through these models, IT decision-makers can gain more granular visibility into usage and spending and manage from a single unified view. They also gain the charging and billing flexibility key to transparently align spend more efficiently to the department and projects consuming the resources and as a result improve overall business outcomes.





III. HPE GreenLake for Private Cloud Enterprise: Solution-wide Benefits

Built for cloud-native and traditional applications, HPE GreenLake for Private Cloud Enterprise includes modular infrastructure and software and supports bringing the best of the public cloud experience on premises — across an organization's edges, datacenters and colocation facilities — which, from our view, ensures deployment versatility. This enables accessibility of a fungible pool of resources to be deployed, expanded, or repurposed, depending on the need for bare metal, VMs, or containers.

The solution is delivered with enterprise-grade service level agreements (SLAs) covering the full lifecycle, encompassing installation, provisioning, firmware updates, maintenance, operations, hardware, growth planning, and support. Moreover, customers attain comprehensive visibility on usage and spend with consumption analytics and can oversee and optimize costs by service type, location, or business unit, as well as obtain aggregated usage across their private and public cloud deployments.

The key HPE GreenLake for Private Cloud Enterprise benefits also include the following:

Lower TCO and Cost Transparency. Enterprises can better understand and exercise informed oversight across their usage and consumption behavior through consumption analytics and pay as you go models that eliminate overprovisioning. Customers can observe and maximize costs by service type, location, and business unit in parallel with tracking capacity and aggregated usage metrics.

Self-Service Agility. By providing cloud operators and developers with an intuitive, browser-based user interface, APIs, CLIs, and infrastructure as code, organizations can configure resources and provision services faster to meet business needs. HPE GreenLake for Private Cloud Enterprise automates routine operations, such as creating and managing the lifecycle of bare-metal instances, VM compute instances, and container clusters, delivering greater flexibility to meet the changing needs of modern applications.

DevOps. HPE GreenLake for Private Cloud Enterprise fulfills the demands of DevOps teams for seamless integration with familiar toolsets and automated, continuous deployment (CD) to ensure consistent deployment and app configuration.



IV. HPE GreenLake for Private Cloud Enterprise: Expansive Value Proposition

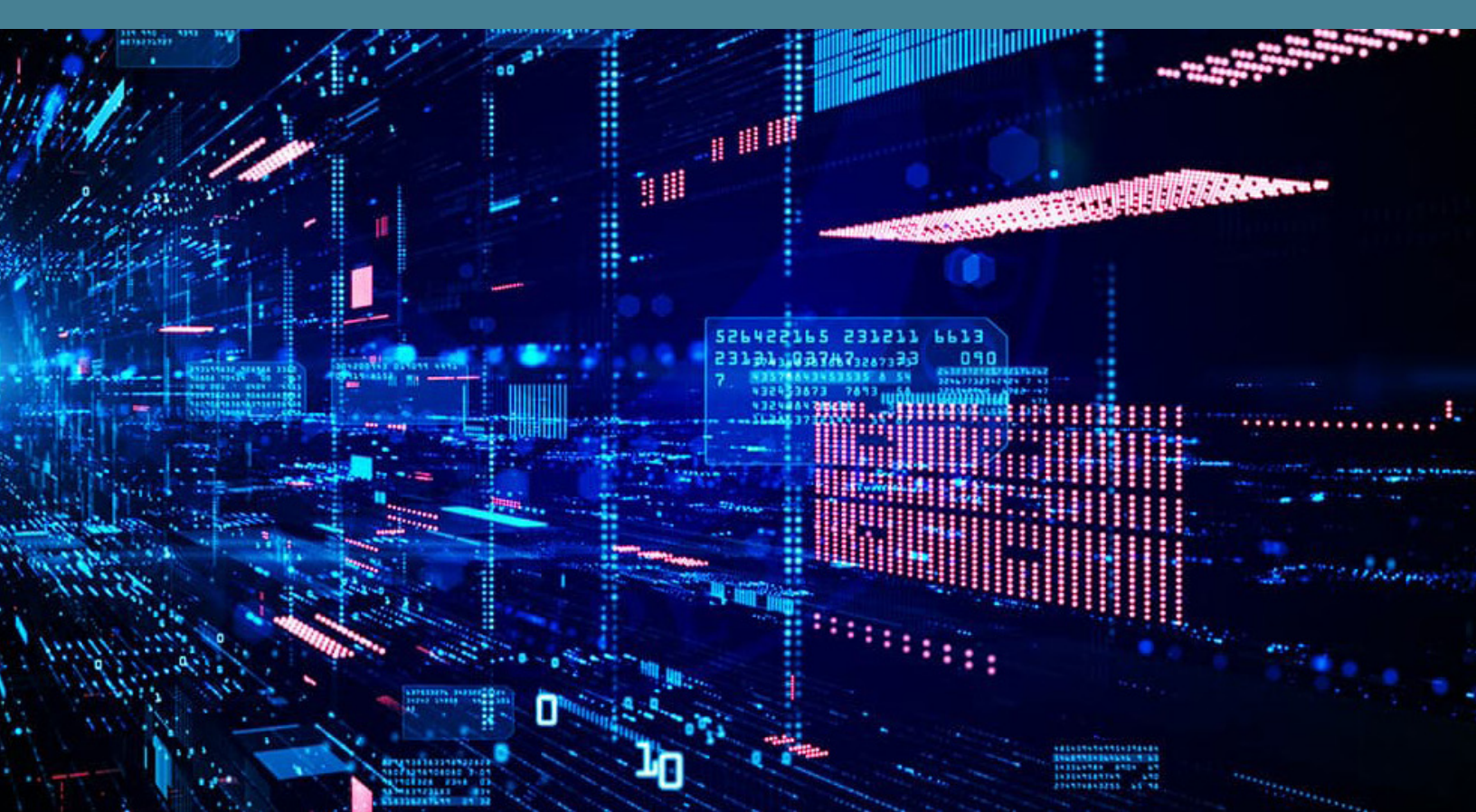
In this section, we'll provide an overview of how HPE GreenLake for Private Cloud Enterprise can help accelerate business agility, resolve data uncertainty, and secure connecting data across hybrid/multi-cloud environments. These value enhancers include the following:

Streamlined Managed Services Experience. The managed services aspect here is undeniably attractive. Enterprises can attain a breakthrough hybrid cloud experience by engaging HPE specialists to take complete responsibility for the management of the overall cloud infrastructure, enabling customers to offload intricate management of infrastructure, sharpening organizational focus on advancing their primary business goals by avoiding IT administration overhead. Plus, the service level agreement (SLA) focus of HPE GreenLake uplifts the HPE GreenLake value proposition by meeting enterprise demand for strict SLAs.

Open API Versatility. HPE GreenLake for Private Cloud Enterprise provides a fully documented, secure, and scalable framework of APIs for developers. This enables developers to programmatically provision, configure, and manage IT infrastructure, perform IaC functions, and access DevOps resources.

Data Sovereignty & Governance. As enterprises navigate the rapidly evolving digital landscape, data sovereignty and governance take on paramount importance, particularly in markets such as the EU. Since HPE GreenLake for Private Cloud Enterprise delivers the cloud experience where apps and data live, organizations are able to keep their data in place and meet their needs for data sovereignty, privacy, and control.

Bolstering Enterprise Sustainability Objectives. Enterprises are crystallizing their visions and values by making organization-wide strategic commitments to develop and fulfill their sustainability initiatives. This includes dedicating more resources and marketing focus in advancing their environmental, social, and governance (ESG) objectives and KPIs. Through HPE GreenLake for Private Cloud Enterprise, enterprises can support multiple workloads with the same footprint (i.e., BM, containers, and VMs within the same environment), reduce their data center footprint, energy usage, and can responsibly repurpose, reuse, and dispose of equipment, producing more value for their customers and partners by advancing and meeting their ESG goals.



HPE GreenLake for Private Cloud Enterprise: Delivering Competitive Advantages

HPE GreenLake for Private Cloud Enterprise can be programmatically provisioned, configured, and scaled to meet the demands of the modern DevOps model. The platform is built to integrate into an enterprise's sanctioned configurations, images, toolchains, and networks. From our view, these capabilities are integral to fulfilling organization-wide goals of gaining a strategic, cloud-driven competitive edge by maximizing financial models for cloud economics and forwarding sustainability missions.

From our view, the agnostic approach of HPE GreenLake for Private Cloud Enterprise engenders confidence across enterprises that prioritize choice and flexibility in conducting their cloud journeys. This approach augments HPE's partnership strategy with hyperscalers such as Amazon Web Services (AWS), Microsoft Azure, and Google Cloud. Through these partnerships, HPE GreenLake for Private Cloud Enterprise complements the public cloud resources of its customers as well as fulfills their overall hybrid cloud strategies. As a result, customers can distribute the workloads to the hyperscalers that are better suited for the public cloud than HPE GreenLake for Private Cloud Enterprise and vice versa, all according to their overall workload optimization requirements.

HPE GreenLake for Private Cloud Enterprise maintains a competitive edge over the hybrid cloud offerings of traditional rivals such as Dell APEX and Lenovo TruScale for a few reasons. For starters, the HPE GreenLake platform has a time-to-market advantage over Dell and Lenovo in the edge-to-cloud platform category, making it more battle-tested and validated in fulfilling customer demands. For example, the HPE GreenLake market presence includes over 65,000 customers worldwide and 82% year-over-year growth with over \$4B in contracts. By comparison, TruScale is still a nascent offering with limited traction. Dell's sell-off of VMWare to Broadcom likely plays a role in the competitive landscape, generating sales and marketing distraction in managing its channels as regulatory hurdles drag out the completion of the deal.

V. Recommendations and Conclusion

We believe that HPE GreenLake for Private Cloud Enterprise merits a spot high on the consideration list for IT leaders, enterprise cloud operators, and cloud architects focusing on modernizing their private cloud experience. The solution brings the cloud to organizations and to their apps and data where they are distributed and needed — accelerating time-to-value, strengthening operational excellence, and liberating capital and resources throughout rapidly evolving hybrid cloud environments.

The capabilities of HPE GreenLake for Private Cloud Enterprise are specifically developed to meet the intricate challenges of transforming the private cloud experience, such as easing application development and distributed data workload optimization, which is what today's enterprises seek. By delivering a fully managed service, the HPE GreenLake for Private Cloud Enterprise offering checks all the right boxes.

HPE GreenLake for Private Cloud Enterprise provides the modern private cloud experience essential to fast-tracking data-first modernization initiatives, including full visibility and control over costs, security, and governance, as well as leveraging managed services to fill gaps in skills and resources.

From our perspective, HPE GreenLake for Private Cloud Enterprise is a compelling value proposition for enterprises committed to the full edge-to-cloud approach as an integral component of the modernization of their private cloud experience. Today, the HPE GreenLake cloud platform has more than 65,000 customers across all industry sectors and sizes, including Fortune 500 companies, government and public sector organizations, and midmarket enterprises. The extensive market presence and diverse industry footprint of HPE GreenLake can provide the foundation for HPE GreenLake for Private Cloud Enterprise to ensure enterprises advance their hybrid and multi-cloud journey to achieve optimal business outcomes.

By alleviating organizations from the costs and constraints of traditional on-premises deployments and avoiding the uncertainties of placing unsuited workloads in the public cloud, HPE GreenLake for Private Cloud Enterprise unleashes enterprises to accelerate their data and application modernization goals, while addressing broader objectives such as workload management optimization, hybrid cloud platform unification, and cost control.

HPE GreenLake for Private Cloud Enterprise can easily meet the growing demand across enterprises to focus on optimizing their cloud workloads across private cloud, on-premises, data center, edge, and multi-cloud environments. For many enterprises, the cloud journey has proven challenging and HPE GreenLake for Private Cloud Enterprise provides practical capabilities and solutions worth considering as leaders work to transform their cloud journeys regardless of their unique situations



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