

Overview

HPE Private Cloud Enterprise

HPE Private Cloud Enterprise is a fully managed Infrastructure as a Service (IaaS) offering that delivers a self-service cloud experience to customer IT cloud and data center administrators, application developers and DevOps teams. This service relieves organizations from the burden of managing the lifecycle of hardware and software and allows them to instead focus their resources on activities that are core to their business while HPE takes care of the underlying platform. The service enables customers to consume compute, storage, and networking resources, giving teams the ability to choose from bare metal, virtual machines (VMs), and/or container clusters all deployed onto a common pool of cloud infrastructure. Backed by enterprise-grade availability SLAs and a cloud provider responsibility model, the service is built to handle the most demanding on-premises applications

HPE Private Cloud Enterprise for Disconnected Management

HPE Private Cloud Enterprise for Disconnected Management is a fully managed private cloud solution for highly regulated industries, ensuring secure, mission-critical workloads run without an external connection. It offers a cost-effective, configurable solution without the complexities of traditional public cloud offerings, addressing compliance challenges and staffing constraints.

HPE Private Cloud Enterprise Disconnected (PCE-D) (the “Service”) is an infrastructure-as-a-service offering that delivers a unified self-service infrastructure provisioning experience to IT and application administrators and developers. This fully managed service enables several types of workloads, whether hosted on bare metal or virtual machines (VMs), to be deployed onto a common pool of private cloud infrastructure.

At A Glance

Gain the flexibility and scalability your applications need with a fully managed cloud experience for bare metal, virtual machines, and containers—all within your private data center environment. HPE Private Cloud Enterprise brings a cloud operating model to your applications and data across data centers, colocation facilities, and the edge—delivering enterprise-grade security, automation, and scalability.

- Managed service model eliminates infrastructure complexity.
- Role-based access control (RBAC) ensures secure self-service provisioning.
- High availability SLAs for mission-critical workloads.
- Run any application—traditional or cloud-native—securely and at scale.

Bare metal compute for maximum performance

- No hypervisor overhead, enabling high-performance workloads.
- Lifecycle management tools for operating system updates and instance re-imaging.

Virtual machines with advanced cloud capabilities

- Standard and custom virtual machine sizes to balance cost and performance.
- Policy-based auto-scaling for optimized performance.
- Cross-site high availability option for failover protection.
- NSX-powered software-defined networking, including firewalls, load balancers, and micro-segmentation.



Overview

Kubernetes service for cloud-native agility

- Custom cluster deployment on selected compute infrastructure.
- Cluster lifecycle management and containerized application provisioning.

Intelligent cloud modules for optimized workloads

- Configurable workload-optimized compute and flexible block storage options.
- Ongoing updates and new instance types to support evolving demands.

Seamless automation and integration

- API, Ansible and Terraform support for full-stack automation and DevOps workflows.
- Application blueprints and self-service catalogs for rapid deployment.

HPE Private Cloud Enterprise consists of the underlying infrastructure platform including physical hardware (compute, storage, and networking) presented as bare metal, virtualized, or Kubernetes services, as selected and configured for the specific customer deployment. An integrated control plane hosts the HPE managed services operational software, and an out-of-band management network enables infrastructure monitoring and maintenance. The customer access their private cloud through the GreenLake platform and the on-premises cloud management software. Consumption analytics provides the GreenLake financial operations interface necessary to monitor usage and consumption of the private cloud resources.

Category	Description
Platform	• HPE ProLiant Gen 11 servers based on Intel and AMD processors • HPE Alletra block storage supporting iSCSI and Fibre Channel SANs • HPE Aruba spine-and-leaf data and management networks for up to 7 racks • HPE ProLiant resilient control plane for HPE cloud service platform operations • HPE factory-built and delivered service includes rack, cable, and PDU infrastructure
Manageability	• HPE GreenLake platform identity and access management • HPE Morpheus self-service hybrid cloud management platform
Service Management	• Consumption Analytics metering, billing, and capacity usage reporting interface • Managed for You experience includes proactive monitoring, incident management, and lifecycle and capacity management



Overview

Key Features and Benefits

- **Cloud modules:** Standardized cloud infrastructure that provides workload-optimized compute instances, storage capacity, and network connections that allows customers to meet their diverse workload requirements. The service is enabled by these cloud modules which are designed to provide customers with choice, automation, and faster time to value.
- **Bare metal:** The service allows customers to provision dedicated physical compute resources without a virtualization layer. Bare metal instances are ideal for workloads that need direct access to the physical hardware, or are sensitive to the performance overhead of virtualization. Customers can choose from any of the supported instance types that have been deployed within their private cloud.
- **Virtual machines:** The service allows customers to provision virtual machine instances that can be used to deploy and run their ESXi-based workloads. Customers can request multiple VM clusters that consist of different compute instance types and sizes allowing them to optimize cost and performance for different virtual workloads. The service uses NSX to provide advanced software-defined networking functions.
- **Containers:** The service allows customers to dynamically provision Kubernetes clusters on which they can securely deploy and scale their containerized and cloud-native workloads.
- **IAM and RBAC:** The service supports authentication (including MFA) to tightly control customer access to private cloud resources and services. It also provides granular RBAC to govern which specific users or groups of users can access specific resources and platform functions. It allows creation of custom roles or selection from predefined role categories.
- **UI, API, and IaC:** Customers can access and consume the service through a rich and intuitive graphical user interface accessible through the HPE GreenLake platform. It provides a secure, standard interface to provision, configure, and manage their IT infrastructure through APIs. It includes IaC functionality through Terraform providers to manage resource lifecycles across all services.
- **External Cloud Integration:** The service provides a cloud management platform that can be integrated with public clouds like Amazon Web Services, Azure public cloud and Google Cloud Platform and pre-existing customer VMware clusters.
- **Consumption Analytics:** The service includes Consumption Analytics, which provides users with the ability to analyze cost and usage data. Consumption Analytics has capabilities for creating custom dashboards, cost and usage reports and budgeting, and capacity usage reports. The tools in Consumption Analytics deliver a unified view of historical cost and usage data for both service resources and onboarded public cloud resources.
- **Service Implementation:** HPE delivers the factory-built system to data centers owned or managed by the customer or at an HPE GreenLake contracted colocation facility. Implementation provides a fully installed and ready-to-consume environment.
- **Service Management:** The service includes comprehensive management operations, including proactive monitoring, incident resolution, on-site repair and replacement of system components, solution lifecycle management, and capacity management. It includes relationship management, a governance process, and clearly defined systems operations and administrative activities.
- **Educational Services:** The service includes one-year access to a pre-defined quantity of HPE Education Learning Credits.



Overview

HPE Private Cloud Enterprise Disconnected

HPE Private Cloud Enterprise Disconnected while retaining the core capabilities and configurations of the Private Cloud Enterprise, provides the below unique additional capabilities in the Management Module or the Cloud Rack that is completely local

- Control plane – fully local, dedicated, redundant, server cluster that performs internal system management, maintenance, and supervisory functions. The control plane is accessible and managed solely by HPE.
- Identity and access management - HPE Private Cloud Enterprise provides a multi-tenant platform that supports granular RBACs to allow tight governance of users, groups and access to resources and platform functions. It helps Customers create custom roles or choose from many predefined role categories. This Service can integrate with the customer Identity Provider (IDP) multifactor authentication (MFA) to tightly control access to private cloud resources and services.
- Networking - Includes redundant high-performance 25/100GbE switches (leaf and spine switches) to accommodate intra-rack and inter-rack traffic, as well as redundant 1GbE switches to support out-of-band management traffic.
- Hybrid cloud experience, The Service can be integrated with clouds like Amazon Web Services, Azure public cloud and pre-existing customer VMware clusters. The Service provides a cloud management platform, through which Customers can onboard and manage external clouds.
- Built-in AI/ML – Built-in OpsRamp technology correlates alerts with AIOps and machine learning to accelerates issue resolution and identify root causes
- Storage – Keep control of your data. Private Cloud Enterprise is built on HPE Alletra B10000 Storage that delivers cloud-native simplicity and the flexibility to consume resources exactly as and when you need them
- Security and compliance includes Trade Agreements Act (TAA), Federal Information Processing Standards (FIPS) 140-2, Transport Layer Security, NIST 800-53 controls, DOD Security Technical Implementation Guides STIGS, Hardening document



Service and Support

HPE provides the physical implementation of the system at data centers owned or managed by the customer or at an HPE GreenLake contracted colocation facility. Implementation includes a fully installed and ready-to-consume environment.

The service includes comprehensive management of the following activities:

- Proactive monitoring
- Incident management
- On-site repair and replacement of solution hardware components
- Remote troubleshooting and remediation of solution software components
- Lifecycle management of solution software and hardware components
- Capacity management

The service comes with enterprise grade monthly uptime SLAs.

- Bare metal instances: 99%
- Virtual machine clusters: 99.5% for a single site, 99.95% for dual-site high availability stretched clusters
- Container clusters: 99.9% for clusters with at least three control plane nodes

More information about the service deliverables and the details of the SLA can be found in the:

HPE Private Cloud Enterprise Service Description.



Configuration Information

HPE Private Cloud Enterprise Cloud Module Configuration Options

Compute			
Types	Configurations	Description	Options
Memory Optimized High-memory capacity servers for virtualized and bare metal workloads, suitable for small, medium, or large data center configurations.	M3i family (DL360)	64-core, 3.6GHz CPU (2x Intel Xeon-Platinum 8462Y+), DDR5 memory, 2x 100Gb Ethernet, 2x 1.6 TB NVMe	1024/2048 GB memory, Fibre Channel (2x32Gb), TAA
	M3a family (DL365)	64-core, 3.75GHz CPU (2x AMD EPYC 9354), DDR5 memory, 2x 100Gb Ethernet, 2x 1.6 TB NVMe	1536/3072 GB memory, Fibre Channel (2x32Gb), TAA
License Optimized Low core count servers for applications with license costs tied to server hardware, typically required in large data center configurations.	G3iu family (DL320)	16-core, 3.3GHz CPU (1x Intel Xeon-Gold 6426Y), DDR5 memory, 2x 100Gb Ethernet, 2x 1.6 TB NVMe	128/256/512/1024 GB memory, Fibre Channel (2x32Gb)
	M3au family (DL325)	16-core, 4.15GHz CPU (1x AMD EPYC 9174F), DDR5 memory, 2x 200Gb Ethernet, 2x 1.6 TB NVMe	384/768/1536 GB memory, Fibre Channel (2x32Gb)
Compute Optimized High core count servers for database applications in large data center configurations.	C3ix family (DL380)	96-core, 3.1GHz CPU (Intel Xeon-Platinum 8468), DDR5 memory, 4x100G Ethernet, 2x1.6TB SAS. Fibre Channel only (4x32Gb)	512/1024/2048/4096 GB memory
Accelerated Compute GPU-enabled servers for VDI, graphics and video processing.	Z4i family (DL380a)	64-core, 2.7GHz CPU (2x Intel Xeon-Gold 6530), 2x Nvidia L40S GPU, 256 GB DDR5 memory, 4x 100Gb Ethernet, 2x 1.6 TB NVMe. iSCSI only	---
	Z4iu family (DL320)	32-core, 2.7GHz CPU (1x Intel Xeon-Gold 6530), 2x Nvidia L4 GPU, 256 GB DDR5 memory, 2x 25Gb Ethernet, 2x 1.6 TB NVMe. iSCSI only	---



Configuration Information

Storage Block Volumes			
Family	Configurations	Description	Effective Capacity (2:1 data compaction)
Business Critical Fast, consistent, and resilient storage with all NVMe flash and 99.9999% data availability	B2b.b family (Alletra 6070)	Up to 210k IOPS (16K, 70% read). 100Gb iSCSI connectivity	120 TiB to 1.6 PiB
	B2b.p family (Alletra 6090)	Up to 260k IOPS (16K, 70% read). 100Gb iSCSI connectivity	120 TiB to 6.5 PiB
Mission Critical Scalability for mission-critical applications with predictable performance and ultra-low latency includes all NVMe flash and 100% data availability	B3m.b4N family (Alletra B10000)	Up to 363k IOPS (16K, 70% read), 16-core controller, 4-node switched 32x32Gb Fibre Channel connectivity	120 TiB to 8.1 PiB
	B3m.p4N family (Alletra B10000)	Up to 606k IOPS (16K, 70% read), 32-core controller, 4-node switched 32x32Gb Fibre Channel connectivity.	120 TiB to 8.1 PiB

Resources and additional links

[HPE Private Cloud Enterprise Service Description](#)

[HPE Private Cloud Enterprise White Paper](#)

[HPE Private Cloud Enterprise eBook](#)

[HPE Private Cloud Enterprise – Your service experience](#)

[HPE Private Cloud Enterprise with disconnected management White Paper](#)



Configuration Information

Shared Responsibility Model (SRM)

HPE Private Cloud Enterprise subscription includes the necessary hardware, software, and services to deliver the service level specified. The service levels offered are based on a foundational shared responsibility model (SRM) depicted below and detailed in the HPE Private Cloud Enterprise service description:

Customer	HPE
Responsible for data center facilities and network connectivity, including access to the GreenLake Platform.	Responsible for the health, availability, and lifecycle management of the system.
Responsible for operating system images and licenses, workload and application backups and antivirus.	Responsible for platform management (bare metal, virtualization, Kubernetes).
Responsible for customer users, groups, roles and access controls within the system	Responsible for delivering customer orientation and handover of system at completion of delivery.
Responsible for site readiness and identification of and service contracts for execution of integrations with customer data center infrastructure components and software.	Responsible for build and delivery of a standalone private cloud within the customer data center based on site assessment and customer information collected prior to order.
Initiating the order of additional capacity beyond total available capacity based on future consumption needs.	Quarterly cloud service operational reviews including capacity utilization reports and planning meetings.
Communicate service requests through self-service portals and provide timely scheduling of change windows.	Communicate service impacting maintenance windows and security incident & remediation.
Secure Darksite data centers (DCs) owned or managed by the Customer	Will provide a fully installed and ready-to-consume environment. The Service Management for Disconnected Management is provided by a team of HPE specialists assigned to the contract and local to the country. HPE will use appropriately authorized/secured cleared resources as required by the customer.



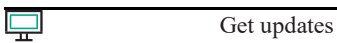
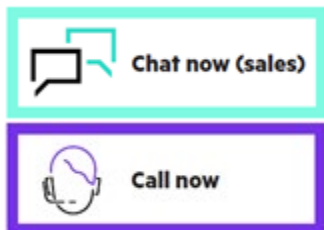
Summary of Changes

Date	Version History	Action	Description of Change
03-Mar-2025	Version 1	New	New QuickSpecs



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