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HPE Private Cloud PC3000 QuickSpecs

An agile cloud operational experience and a simple cloud consumption model for private cloud infrastructure.

With this offering, customers can build their self-service cloud on demand and deliver virtual machines (VMs) across hybrid cloud, when they need it and where they need it in data centers, at the edge and beyond. It supports connected deployments and extends to air-gapped environments through HPE Private Cloud PC3000a, enabling local operation where external connectivity is restricted. PC3000 comes with HPE VM Essentials and has the ability to manage virtual infrastructure based on VMware and/or VME.

PC3000 with HPE Morpheus VM Essentials Software

PC3000 now supports HPE Morpheus VM Essentials Software and is a cost-effective virtualization solution that is fully integrated into PC3000 with Alletra MP B10000 to support your virtualization environment. It includes a KVM-based hypervisor that supports multiple types of storage, distributed workload placement, high availability (HA), live migration, data protection via snapshots and backups. The unified management suite allows administrators to manage both one VMware cluster and one VM Essentials hypervisor from a single interface, simplifying the provisioning and management of VMs, clusters, and HA.

Additionally, VM Essentials offers enterprise-class global support and a future-proof upgrade path to HPE Morpheus Enterprise Software that includes hybrid-cloud management, Kubernetes support, governance, and FinOps capabilities. This solution provides operational efficiency and simplicity for virtualized environments, making it an ideal choice for organizations looking to optimize their IT infrastructure. For air-gapped deployments, HPE Private Cloud PC3000a extends these virtualization capabilities through locally hosted management and lifecycle services, enabling supported operations without continuous external cloud connectivity.

At A Glance

PC3000 changes the way customers procure and manage VMs with a cloud operational experience. PC3000 helps eliminate complexity with a unified cloud service for VM to infrastructure management, including public cloud VMs. The solution—delivered on-prem and through the Data Services Cloud Console—enables global unified management and monitoring of VMs and infrastructure deployed at any location as well as 1-click, multisite upgrades. This enables IT to reduce operating costs while helping optimize resource utilization, move to a generalist model, and shift from managing infrastructure to managing VMs and data, thereby refocusing resources and skills on higher-value strategic initiatives. The VM-based cloud offering brings the agility of cloud operations and the ease of cloud ownership to apps and data everywhere. Shift from traditional VM and infrastructure ownership to flexibly consume hybrid cloud VMs with predictable monthly costs.

This simplified private cloud solution empowers customers to transform from IT operator to service provider while focusing on accelerating outcomes and not infrastructure management. With this service, customers can:

- Experience faster self-service agility with cloud management to accelerate deployments
- Manage VMs across supported connected or air-gapped environments
- Deploy, manage, upgrade, and optimize your entire VM fleet globally from any location or device
- Choose between HPE Morpheus VM Essentials, VMware, or a combination of both (requires separate hosts and virtualization clusters).

PC3000 lets customers and partners choose a platform that suits their application and infrastructure needs. It works with HPE Alletra Storage MP B10000 and HPE SimpliVity hyperconverged solutions.

PC3000 is also available in two consumption models, Pay-upfront and Pay-as-you-go (IaaS). The management, features and functionalities may vary by deployment model and geography.

HPE Private Cloud PC3000 air-gapped

HPE Private Cloud PC3000a is the air-gapped deployment model of HPE Private Cloud PC3000. It extends the core PC3000 infrastructure and operating model to environments where external connectivity is restricted or prohibited. PC3000a uses GreenLake Dedicated Platform, hosted on a dedicated HPE ProLiant Compute DL325 Gen12 server, to provide local management, software catalog, and lifecycle services. The solution supports deployment and day-to-day operations without continuous connectivity to HPE-hosted cloud services.
The initial release supports greenfield deployments with HPE Services-led installation. The Dedicated Platform must be installed and operational before PC3000a deployment can be completed. It is delivered as a factory integrated, single rack solution where software and lifecycle updates are delivered through documented offline workflows.

PC3000a supports the following solution components:

- **Compute:** Supported HPE ProLiant Compute Gen12 configurations
- **Storage:** HPE Alletra Storage MP B10000
- **Networking:** Supported HPE Aruba Networking interconnect switches
- **Virtualization:** HPE Morpheus VM Essentials Software using HVM, VMware ESXi, or both on separate supported clusters
- **Air-gapped platform**: GreenLake Dedicated Platform hosted on HPE ProLiant Compute DL325 Gen12 Server

Key initial-release boundaries:

- GreenLake Dedicated Platform uses a single-node configuration at launch
- Dedicated Platform control-plane HA is not supported at launch
- Existing connected PC3000 environments cannot be converted in place
- Supports HPE Morpheus VM Essentials and VMware ESXi on documented configurations
- PC3000 lifecycle content is delivered through offline workflows
- Dedicated Platform updates follow a separate documented lifecycle process

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What's New

- **PC3000 now supports air-gapped deployments with HPE Private Cloud PC3000a**
  - Extends the PC3000 experience to environments where external connectivity is restricted or prohibited, while retaining the core PC3000 stack.
  - Uses GreenLake Dedicated Platform, hosted on HPE ProLiant Compute DL325 Gen12, to provide essential management, software catalog, and lifecycle services on premises.
  - Initial release supports greenfield, HPE Services-led deployments.

- **PC3000 support for ProLiant Compute Gen12**
  - New platform support:
    - HPE ProLiant Compute DL360 Gen12
    - HPE ProLiant Compute DL380 Gen12
    - HPE ProLiant Compute DL325 Gen12

- **PC3000 includes HPE Morpheus VM Essentials Software**
  - All Private Cloud PC3000 with Alletra MP will ship with HPE VM Essentials by default
  - Choose between VM Essentials, VMware, or a combination of both (requires separate hosts and virtualization clusters) at the time of deployment.

- **PC3000 brownfield switch support no longer available**
  - HPE no longer supports brownfield switch configurations for the PC3000 platform. Customers must deploy PC3000 interconnect switches (Aruba 8325) as part of the solutions to ensure full compatibility, supportability, and access to the complete feature set.

Notes: iSCSI support only. FC and NVMeOF are not currently supported with PC3000

Key Features and Benefits

The latest key feature adds HPE VM Essentials Software as a supported hypervisor management platform for Private Cloud PC3000 systems. You can now deploy one of the available hypervisor runtimes:

- VM Essentials manager: Use the HPE Morpheus VM Essentials Manager Software Ul to manage servers, clusters, datastores, and virtual machines. For systems deployed with this configuration, you can use the Private Cloud PC3000 to monitor systems, but the following features are not supported within the Private Cloud PC3000 UI: Datastore management, VM management, cluster management, server management, and peer persistence with VME clusters
- vCenter Server: Systems deployed with this configuration require that you upload your own ESXi Image to a designated datastore for setup to complete deployment of VMware ESXi clusters.
  For more information, see: PC3000/PC3000a with Alletra Storage MP B10000: Deployment guide for new Installations.

The core feature set includes:

- Self-service setup: Accelerate agility and speed up deployments. It provides capability for VMware or VM Essentials at deployment
- Observability: Global dash boarding (VM and Cluster information, capacity details/trends, performance details/trends, alerts)
- LCM: Full-stack lifecycle management (automated catalogue-based updates of the various hardware, software, and firmware components vetted by HPE experts)
- Management: On-prem console to provision and manage clusters and VM's
- Connected and air-gapped deployment options: Deploy PC3000 in connected environments or extend operations to air-gapped environments with PC3000a, using locally hosted management, software catalog, and lifecycle services.
- Choice of runtime: Provides customer choice of either leveraging VMware or VM Essentials virtualization
- Run any application without compromise: All the capabilities of Alletra MP (Data Savings, snapshots, Replication*, snapshot, 100% uptime guarantees, Timeless etc.) apply.
- Infrastructure Automation & Orchestration: Setup automation & full-stack lifecycle management

- Future Proof IT: Leverage the same HW infrastructure to run multiple virtualization technologies
  Notes: (*Servers need to be dedicated to the respective hypervisor clusters).
- Experience simplified virtualization: Provision & manage multiple hypervisor clusters (on-prem VME console)
- Built-in Image Conversion: Built-in VM image conversion for easy movement of VMs across hypervisor clusters
- Network automation: Ability to set up supported network switches during the setup phase eliminating manual configurations and network-related complexities
- Lower TCO: Cost-efficient virtualization platform 4x to 25x cheaper.

Notes:

- Customer must download and supply their own VMware ESXi and vCenter binaries.
- Peer Persistence is supported with PC3000 with VMware only.
- There are no differences in features and functionality between the standalone VM Essentials version and bundled VM Essentials version with HPE Private Cloud PC3000. Additional detailed information for VM Essentials can be found at the following URL: HPE Morpheus Software
- Release notes with what is currently supported can be found here: HPE Private Cloud PC3000 Release Notes
- For HPE Private Cloud PC3000a, management, software catalog, and lifecycle services are hosted locally through GreenLake Dedicated Platform. Air-gapped deployments require HPE Services-led installation and use documented offline workflows for software and lifecycle updates.

All GreenLake services are subject to the terms and conditions of the GreenLake data sheet

Service and Support

Support is included as part of the subscription for HPE Private Cloud PC3000. Included with the support is 24x7 telephone and email support for the arrays and hardware components for the chosen subscription term.

Refer to the PC3000 Data sheet https://www.HPE.com/psnow/doc/a50009418ENW?ver=2 for the service deliverables and the shared responsibility model as part of the subscription.

Data availability is guaranteed with HPE Alletra Storage.
The Service Level Agreement (SLA): https://www.HPE.com/psnow/doc/a50003574enw

Easy Configuration through Smart Templates for Pay-as-you-go

Fully pre-configured Smart Templates that allow quick and easy quoting exist for:

- HPE Private Cloud PC3000
- HPE Private Cloud PC3000a for supported air-gapped configurations

Smart Templates for PC3000/PC3000a are pre-defined systems with storage, compute, and network components tailored for multiple workload types and use cases. Smart Templates are complete systems and do not require additional configuration but support optional customization of components as desired.

The Smart templates contain the following attributes to choose:

Workload Type – All flash (business-critical applications) or Hybrid Flash (general-purpose applications)

Workload Tier –

- HPE Alletra Storage MP B10120 Cost Optimized - Ideal for small/fixed-size general purpose virtualization workloads in ROBO and branch environments.
- HPE Alletra Storage MP B10130 Capacity Optimized - Ideal for large, general-purpose workloads such as data lakes, video surveillance & medical image retention
- HPE Alletra Storage MP B10240 Performance Optimized - Powerful and compact (optimized for $/IOPS, IOPS/GB). Ideal for compute-intensive workloads that require highly performance storage such as VDI or transactional databases.
- HPE Alletra Storage MP B10140 Scale Optimized - Best-in-class (optimized for performance and scalability). Ideal for enterprise apps or data center consolidation requirements that will grow over time.
- HPE Alletra 5000/HPE Alletra 6000 Performance Optimized Tier - Service Tier for I/O intensive, very-low latency workloads, and bandwidth intensive applications at a given availability level. Most common for Oracle, Microsoft SQL Server, and IBM DB2 based applications
- HPE Alletra 5000/HPE Alletra 6000 Balanced Optimized Tier - Service Offering designed to balance scalable capacity requirements with I/O sensitive, very-low latency workloads at a given availability level.
- HPE Alletra 5000/HPE Alletra 6000 Value Optimized Tier - Service optimized for cost for I/O sensitive, very-low latency workloads at a given availability level.

Notes: Refer to the PC3000a configuration section for supported terms, requirements, and limitations.

Tier requirements	All Flash	Hybrid Flash
Cost Optimized HPE Alletra Storage MP B10120	Up to 175K IOPS (read)	N/A
	Up to 65K IOPS (mixed)	N/A
	Up to 4.3 GB/s & 1.4 GB/s (read & write)	N/A
Capacity Optimized HPE Alletra Storage MP B10130	Up to 320K IOPS (read)	N/A
	Up to 128K IOPS (mixed)	N/A
	Up to 8.2 GB/s & 3.1 GB/s (read & write)	N/A
Performance Optimized HPE Alletra Storage MP B10240	Up to 400K IOPS (read)	N/A
	Up to 148K IOPS (mixed)	N/A
	Up to 9.4 GB/s & 3.9 GB/s (read & write)	N/A
Scale Optimized HPE Alletra Storage MP B10140	Up to 735K IOPS (read)	N/A
	Up to 283K IOPS (mixed)	N/A
	Up to 17.7 GB/s & 7.6 GB/s (read & write)	N/A

Notes:

- The performance service level objective includes standard data operations (i.e. UI, Intelligent Autonomous Storage, garbage collection). Event-based data operations (replication, snapshots, hardware upgrade, etc.) are excluded.
- 8k blocks used for IOPS and 256k block used for bandwidth in GB/s for storage performance
- These storage tier and capacity requirements also apply to supported HPE Private Cloud PC3000a configurations. The additional GreenLake Dedicated Platform required for air-gapped operation is configured separately and does not change the PC3000 workload storage tier or capacity reservation.

1. Storage Capacity Reservation

Workload Tier	Storage Array	Usable Capacity
Cost Optimized	HPE Alletra Storage MP B10120 2-node 8-core	30 TB
Capacity Optimized	HPE Alletra Storage MP B10130 2-node 16-core	162 TB
Scale Optimized	HPE Alletra Storage MP B10140 2-node 32-core	62 TB
Performance Optimized	HPE Alletra Storage MP B10240 4-node 32-core (switched)	191 TB

Notes: Smart Templates for standard PC3000 allow customization of storage array model, installed capacity, and adapters.

2. Compute Capacity Reservation

Workload Tier	Server Qty	Server Model
Cost Optimized (HPE Alletra Storage MP B10120)	2	ProLiant DL325 Gen11 AMD EPYC 9124 3.0 GHz 16-core 256 GB DDR5-4800
Capacity Optimized (HPE Alletra Storage MP B10130)	3	ProLiant DL325 Gen11 AMD EPYC 9224 2.5 GHz 24-core 384 GB DDR5-4800
Performance Optimized (HPE Alletra Storage MP B10240)	9	ProLiant DL360 Gen11 2x Intel Xeon-Gold 6430 2.10 GHz 32-core 1024 GB DDR5-4800
Scale Optimized (HPE Alletra Storage MP B10140)	12	ProLiant DL360 Gen11 2x Intel Xeon-Gold 6430 2.10 GHz 32-core 1024 GB DDR5-4800

Notes:

- Smart Templates for standard PC3000 allow customization of server model, CPU, memory, and installed options.
- Licenses and software binaries for VMware vSphere are not included and must be provided by the customer. VMware vSphere Foundation and vSphere Standard licenses are supported.
- VMware vSphere Foundation is recommended as VMware Distributed Resource Scheduler (DRS) is required to enable 1-click update functionality. VMware vSphere Standard will require manual migration of VMs from hosts before they are updated.
- For PC3000a configurations, an additional HPE ProLiant Compute DL325 Gen12 server is required to host GreenLake Dedicated Platform. This server is configured separately from the PC3000 workload cluster and is not included in workload compute-capacity calculations.
- The Dedicated Platform must be installed and operational before PC3000a deployment can be completed.

3. Network Configuration

Network Configuration	Detail
Interconnect switching equipment included	Two switches are included along with all transceivers and signal cabling required for the full solution

Notes: If startup services are included with PC3000 the setup and configuration of the interconnect switches is included.

4. Rack and power Configuration

Rack Configuration	Detail
Rack included	The solution will includes a 42U with integrated PDUs for HPE Private Cloud PC3000.
	All Flash: 600 mm (W), 1040 mm (D) Hybrid Flash: 600 mm (W), 1200 mm (D)
Rack excluded	The solution will be installed into an existing compatible rack. Not supported for PC3000a.

Notes:

- Network connectivity is per array (includes both storage controllers)
- Power requirements per array (includes all redundant PSUs)
- PC3000a does not support rack-excluded or multi-rack configurations at initial release. The complete solution is factory-integrated in one rack, including the required power distribution, cabling, networking, and dedicated platform server.

Resources and additional links

- The networking requirements, best practices, supported technologies, and supported network topologies for PC3000
  https://psnow.ext.HPE.com/doc/a00114771enw
- Validated Configuration Matrix for HPE Alletra dHCI:
  https://infosight.HPE.com/resources/nimble/validated-configuration-matrix

Summary of Changes

Date	Version History	Action	Description of Change
02-Nov-2026	Version 16	Changed	Main changes for this version: – Added support for HPE Private Cloud PC3000a air-gapped deployments. – Added GreenLake Dedicated Platform requirements for local management, software catalog, and lifecycle services. – Required a dedicated HPE ProLiant DL325 Gen12 server. – Added offline software and lifecycle update workflows. – Defined launch limitations and deployment requirements. – Added supported compute, storage, networking, and virtualization options. – Clarified storage and compute capacity requirements. – Required factory-integrated, single-rack deployments. – Updated content for connected and air-gapped environments.
05-Oct-2026	Version 15	Changed	Minimal updates: URLs fixed
03-Aug-2026	Version 14	Changed	Main changes for this version: – Rename to PC3000 – Remove all Equinix references – Switches are now Interconnect devices (remove brownfield option) – Remove Alletra 5000 / 6000 EOL
06-Apr-2026	Version 13	Changed	Overview section was updated. Main changes: – Now supports the latest HPE ProLiant Gen12 servers for improved performance and efficiency. • HPE ProLiant DL360 Gen12 • HPE ProLiant DL380 Gen12 • HPE ProLiant DL325 Gen12 – HPE Morpheus VM Essentials Software is now included by default, giving customers a cost-effective, fully integrated virtualization option with unified management and seamless scalability. – Enhanced deployment choice: customers can select VMware, VM Essentials, or run both in parallel on separate clusters
02-Feb-2026	Version 12	Changed	Visual rebranding only—updated typography, colors, and design elements to align with new HPE brand standards. No technical specifications or content were modified.
14-Jul-2025	Version 11	Changed	Overview and Standard Features sections were updated - Finetune of PC3000 and VME features updates were added.
05-May-2025	Version 10	Changed	Overview and Configuration Information sections were updated PC3000 + VME changes
13-Jan-2025	Version 9	Changed	Overview and Configuration Information sections were updated HPE Alletra MP hardware model rebranding applied (Alletra MP to HPE Alletra Storage MP B10000)

Summary of Changes

Date	Version History	Action	Description of Change
18-Nov-2024	Version 8	Changed	Overview, Service and Support and Configuration Information sections were updated. PC3000 smart template for Alletra MP added
01-Jul-2024	Version 7	Changed	Overview and Configuration Information sections were updated.
03-Jun-2024	Version 6	Changed	Overview and Configuration Information sections were updated. Gen11 smart template and support for Alletra MP added Addition of Equinix colocation option
08-Jan-2024	Version 5	Changed	Overview, Service and Support and Configuration Information sections were updated. ASQ to IQ changes
13-Nov-2023	Version 4	Changed	HPE Services Rebranding
05-Sep-2023	Version 3	Changed	Overview and Configuration Information sections were updated. Additional Configuration information added – Servers, Ports, VMware licensing
24-Jul-2023	Version 2	Changed	Configuration Information section was updated
05-Jun-2023	Version 1	New	New QuickSpecs

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