

HPE Cloudline server portfolio

Open infrastructure for cloud age service providers



**For large service providers,
HPE Cloudline solves your problems of:**

- **Scale:** "I can't support this growth rate. I can't scale fast enough to meet demand."
- **Adaptability:** "The number of unique configurations we need to manage is staggering."
- **Cost:** "The cost of traditional IT infrastructure is not well-aligned with the economic requirements of my business model."

The HPE Cloudline server portfolio is designed for service providers who need fast deployment, flexible operation, and low total cost of ownership.

Scale quickly, easily, and cost-effectively

Exceed your customers' demands

The cloud has made it possible to deliver a dazzling mix of services, covering a wide array of functions, to anyone with an Internet connection. Users of these services expect they will be easily accessible, always fresh, and—most importantly—cost optimized.

As a service provider, your success is measured by how users experience your application. The dimensions of accessibility, relevance, and cost will impact your business success. Consequently, your choice of infrastructure matters. It directly affects your ability to satisfy user demands while meeting your business objectives.

HPE Cloudline was designed just for you. This brand new server portfolio is designed to make it easier for you to add capacity on demand, improve your operational flexibility, and stay within your budget.

HPE Cloudline addresses your requirements with a totally new approach to server scalability and economics. Built for extreme scale, Cloudline is designed for large service providers and a new era of data center design. Offering white box original design manufacturer (ODM) economics while maintaining a superior Hewlett Packard Enterprise customer experience, Cloudline servers will scale not only functionally but operationally, making it easier to meet demand for service with minimal additional operations cost. The portfolio is ideal for the demand-driven business models of cloud service providers and well-suited to a wide range of workloads.

HPE Cloudline brings together Hewlett Packard Enterprise cloud expertise and quick customer response with volume manufacturing from our partner, Foxconn, to create an offering made for the way that service providers operate.

Built for service providers

Hewlett Packard Enterprise understands what service providers need to thrive. That's why we designed HPE Cloudline servers, to help you:

- **Reduce costs**—A more efficient infrastructure reduces energy and space requirements and increases software automation.
- **Achieve operational efficiency and scale**—Business-aligned technologies that are highly scalable and automated better support your “X-as-a-Service” business model.
- **Drive growth**—Easy scalability allows you to increase your user base and drive market share growth.
- **Deliver consistent customer service level agreements**—Hewlett Packard Enterprise quality and support lets you keep up with tough customer service-level agreement expectations.
- **Speed time-to-market for new services**—Get to market faster with new differentiated services that keep you ahead of the competition.
- **Flex on demand**—Get the flexibility to add infrastructure based on end-user demand.

Helping you meet your business objectives

Cloudline rack-scale servers have all the performance of the latest Intel® Xeon® processors and are delivered to fit your schedule, while reducing capital expenditures (CAPEX) by skipping the unnecessary extras. At the same time, Cloudline reduces your operating expenditures (OPEX) by making integration into your existing environment easier, and management much more flexible. These servers are:

Made for extreme scale

Built for extreme scale, both operationally and functionally, the Cloudline solution is designed to accommodate the variability associated with service provider demand. Delivery and deployment is addressed with optimized logistics support and innovations like rack-level testing and integration. Extreme scale functional needs are met with innovative, multi-node, density-optimized servers with 2P, 1P, and system-on-chip designs to deliver superior efficiency and low cost per node.

Built on open design principles

Cloudline is a truly open system. Full, rack-scale systems are optimized for the largest cloud data centers and built on an open design philosophy. Support for open management tools, leveraging common industry interfaces in both hardware and firmware domains, is standard. Cloudline servers fit easily into a multi-vendor environment where the same service provider management software may be running on platforms sourced from different vendors.

Cost focused

Cost optimization is a key design element of the Cloudline portfolio, which features a minimalist approach to design, offering basic hardware features. These low-cost, bare-metal, rack-mount servers are cost-optimized for large-scale deployments, delivering savings over traditional servers while assuring a quality build. Cloudline is designed for environments where resiliency is software-based and derived from your service application, thereby eliminating the added cost of built-in hardware resiliency.

Technical specifications: HPE Cloudline Rack Mount Series Servers



HPE Cloudline CL2100 G3



HPE Cloudline CL2200 G3

	For application, Web interface, and IT infrastructure application, caching, and search	For Big Data and general cloud data storage applications.
Compute	2 x Intel Xeon E5-2600 v3/v4 processors	2 x Intel Xeon E5-2600 v3/v4 Processors
Memory	16 DIMM slots	16 DIMM slots
Storage	4 LFF/SFF drive bays OR 8 SFF drive bays OR 8 SFF drive bays and 1 internal SSD or 2x M.2 for boot (Depending on Models)	12 LFF drive bays and optional 2 SFF rear hot plug SAS/SATA drive bays and 2 x M2 via PCIe for boot
Networking	4 x 1GbE embedded NIC OR 2 x 1GbE embedded NIC OR no embedded NIC With 1x OCP Mezzanine slots	4 x 1GbE embedded NIC* OR with 1 x OCP Mezzanine slot
VGA/Serial/USB ports	Fixed PSU models: 1 x PCIe x 16 Gen3 FHHL slot 1 x PCIe x 8 OCP NIC Mezzanine slot Redundant PSU models: 1 x PCIe x 16 Gen3 FHHL slot, 1 x PCIe x 16 Gen3 FHHL/ HHHL slot, 1 x PCIe x 8 OCP NIC Mezzanine slot, Optional 1 x PCIe x 8 SAS Mezzanine slot	1 x PCIe x 16 Gen3 HHHL slot 1 x PCIe x 8 Gen3 HHHL slot 1 x PCIe x 8 Gen3 FHHL internal add-on card 1 x PCIe x 8 OCP NIC Mezzanine slot (depending on model)
Management	Standards-based tools	Standards-based tools
Power and cooling	Fixed OR Redundant 5 Redundant, non-hot plug fans OR 6 N+1 redundant, non-hot plug fans	4 Non redundant non-hot plug fans
Form factor	1U	2U
Warranty	3-Year Parts Standard	3-Year Parts Standard

* Available only on HSW, not BDW.

Technical specifications: HPE Cloudline Multi-Node Series Servers



HPE Cloudline CL3100 G3



HPE Cloudline CL5200 G3

	Data Analytics, Hadoop, cloud	Object storage, Cold storage, cloud storage
Compute	2 x Intel Xeon E5-2600 v3/v4 Processors	2 x Intel Xeon E5-2600 v3/v4 processors
Memory	16 DIMM slots	16 DIMM slots
Storage	12 x LFF hot swap drive bays, 2/4 SSD	80 x LFF hot swap drive bays
Networking	10GbE, *25GbE, 40GbE OCP Mezzanine options	10GbE, 25GbE, 40GbE OCP Mezzanine options
VGA/Serial/USB ports	1x Serial port, 1 x VGA port, 2 x USB 3.0 ports	1x Serial port, 1 x VGA port, 2 x USB 2.0 ports
Management	Standards-based IPMI 2.0	Standards-based IPMI 2.0
Power and cooling	8 Hot Plug fans, N+0 redundant	5 hot-plug redundant fans
Form factor	1U	4U
Warranty	3-Year Parts Standard	3-Year Parts Standard

* With later availability

Technical specifications: HPE Cloudline Rackscale Series Servers



HPE Cloudline CL7100 G3

	OpenRack (OCP) for Service Provider
Compute	2 x Intel Xeon E5-2600 v4 & v3 Processors
Memory	16 DDR4 DIMM slots (1024 GB max)
Storage	6 SFF Hot Plug SSDs (Data) 1x M.2 SSD (boot)
Networking	1 x 1GbE embedded NIC (Management) 1x 8 OCP Mezz Slot for networking 10, 25, 40GbE options
Expansion Slots	1x PCIe x 16 Slot (HH/HL), 1x PCIe x 8 Slot (HH/HL), 1x VGA port, 1x USB 2.0 ports, optional 1x PCIe x8 OCP Mezz Slot for NIC
Management	ASPEED 2400, IPMI 2.0 w/ iKVM
Power and cooling	2 hot plug fans 12.1kW PD
Form factor	20U Sled 21" OpenRack 42 OU OpenRack (54 Sleds/Rack)
Warranty	3-Year Parts Standard
Options	21" OpenRack, 12.1kW Power shelf and 30 SFF JBOD sold separately

HPE Services

The Hewlett Packard Enterprise global team of award-winning services experts are available to help design, deploy, manage, and support your environment and processes, through consulting, integration, outsourcing, and support.

As a key part of helping service providers meet their business goals, Hewlett Packard Enterprise offers a lifecycle of services that include HPE Proactive Select credits for technical, operational, and customer-defined services, security services, education/training services, and custom services including onsite

assistance. HPE Spares Management Service is also available, to assist with spares inventory and usage.

The Hewlett Packard Enterprise and Foxconn partnership

Hewlett Packard Enterprise and Foxconn have partnered for several decades, creating innovative servers and solutions that have culminated in this line of high-density, easy-to-manage, cost-competitive servers. Foxconn's superior supply chain prowess, together with Hewlett Packard Enterprise's

industry leadership in compute and industry-recognized service and support, has made this new, world-class computing platform possible.

Compete to win today

Don't wait another minute to find out how HPE Cloudline can fuel your competitive advantage. Contact your HPE representative to find out more today.

Learn more at hpe.com/info/cloudline



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