

# HPE Cloudline server portfolio

Open infrastructure for the cloud age



**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.”
- **Open systems and standards:** This open design philosophy increases and facilitates IT integration and leverages common industry interfaces in both hardware and firmware domains.

Built on open design principles, HPE Cloudline delivers reliable, cost-focused infrastructure to customers worldwide that helps reduce cost while improving operational agility and scalability.

**Open system advantage. HPE customer experience.**

**HPE Cloudline servers** are designed to help you build, operate, and optimize massively scaled data centers so you can outpace the ever-increasing need for greater compute and support explosive business growth. Built on open standard requirements HPE Cloudline facilitates seamless integration into existing multivendor environments and improves operational flexibility so you can hyperscale at the speed of demand.

Overcome the challenges of growth, adaptability, and cost with HPE Cloudline servers—the only open design solution that combines open infrastructure efficiencies and economics with the confidence of a world-class customer experience backed by HPE technical expertise, award-winning service and support, and global manufacturing capability.



## Benefits of HPE Cloudline

- **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.

### Helping you meet your business objectives

Cloudline rack-scale servers have all the performance required 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, multinode, 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 multivendor 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 servers



**HPE Cloudline CL2600 Gen10 Server**



**HPE Cloudline CL2800 Gen10 Server**



**HPE Cloudline CL3100 Gen10 Server**

<b>Processor family</b>	Up to 2 Intel® 1st and 2nd generation Xeon Scalable processors, up to 205W and 28 cores	Up to 2 Intel 1st and 2nd generation Xeon Scalable processors, up to 205W and 28 cores	Up to 2 Intel® Xeon® Processor Scalable family Series
<b>Form factor</b>	1U	2U	1U
<b>Cooling support</b>	5–7 hot plug fans (1–2 CPUs populated) with optional 7 high-performance fans	6 standard hot-plug fans (high-performance fans optional)	(8) Hot-plug N+1 redundant front system fans, (2) Internal fans for NVMe SKU
<b>Storage support</b>	Up to 10 NVMe (2 NVMe + 8 SFF SAS/SATA/ NVMe) or 8 SFF SAS/SATA (including SED) 2x M.2 SATA via optional riser	24 SFF SAS/SATA HDD/SSD Up to 16 SFF NVMe SSD or 12 LFF SATA HDD	(12) LFF HDD 6 Gb/s SATA or (20) SFF NVMe SSDs (2) Optional SFF SSD 6 Gb/s SATA
<b>Memory</b>	(24) DDR4 (6 channels per CPU), up to 2933 MT/s (1.5 TB max)	(24) DDR4 (6 channels per CPU), up to 2933 MT/s (1.5 TB max)	(16) DDR4 2667 MT/s
<b>Network support</b>	4x1GbE embedded + Choice of Standup	4x1GbE embedded + Choice of Standup	10/25/50GbE OCP Mezzanine Card
<b>I/O expansion</b>	3x PCIe 3.0	Up to 8x PCIe 3.0 (3 per processor) + 2 additional PCIe 3.0 with optional tertiary riser	1x16 PCIe front facing slot, 1x16 OCP Mezzanine card 2.0 Type 1
<b>Storage controller</b>	Intel C621 series chipset supporting (12) Internal 6 Gb AHCI/RAID SATA + (2) for optional M.2 SATA Intel VROC Software License Optional SAS/SATA RAID or HBA via PCIe card	Intel C621 series chipset supporting (12) Internal 6 Gb AHCI/RAID SATA + (2) for SATA Intel VROC Software License Optional SAS/SATA RAID or HBA via PCIe card	Embedded SATA 3.0 controller via Intel PCH
<b>Power supply</b>	500/800/1600W 2x redundant Platinum/ Titanium PSUs	500/800/1600W 2x redundant Platinum/ Titanium PSUs, 6 standard hot-plug fans (high-performance fans optional)	(2) 800/1600W PSUs hot plug
<b>Management</b>	Open Standards Based Management IPMI 2.0, Redfish API, AMI MegaRAC BMC	Open Standards Based Management IPMI 2.0, Redfish API, AMI MegaRAC BMC	ASPEED AST2500 management IPMI 2.0, Redfish 1.04 Scheme 2016, KVM over IP
<b>Warranty</b>	3–0–0	3–0–0	3–0–0



**HPE Cloudline CL4100 Gen10 Server**



**HPE Cloudline CL5200 Gen9 Server**



**HPE Cloudline CL5800 Gen9 Server**

<b>Processor family</b>	Per node: 2x Intel Xeon Processor Scalable Family, 4100, 5100, and 6100 Series Processors	Up to 120W Intel EP E5-2600 v4 Series Processors	Up to 2x Intel Xeon E5-2600 v4 Series Processors, up to 14 cores and 120W
<b>Form factor</b>	1U	4U	4U
<b>Cooling support</b>	Front to back, 6 hot-plug fans	5x hot-plug N+1 fans	5x hot-plug N+1 fan modules



## Technical specifications: HPE Cloudline servers (continued)

	HPE Cloudline CL4100 Gen10 Server	HPE Cloudline CL5200 Gen9 Server	HPE Cloudline CL5800 Gen9 Server
<b>Storage support</b>	Per node: (8) rear SFF SATA SSD or Per node: (2) rear SFF NVMe* SSDs	(80) LFF SATA (6 Gb) drives in 1 node (1x80) configuration (40) LFF SATA (6 Gb) drives in 2 node (2x40) configuration (1) PMC SAS expander (2) SFF SATA boot devices per compute node 6 TB, 8 TB, and 10 TB LFF SATA HDD Support	(100) LFF HDD 6 Gb/s SATA (4) SFF SSD 6 Gb/s SATA
<b>Memory</b>	Per node: 16x DDR4, 2666 MHz RDIMM	16x DDR4 DIMM slots up to 2400 MHz	(16) DDR4 RDIMMs (512 GB max), 2400 MT/s
<b>Network support</b>	Per node: 10/25/50GbE via OCP Mezzanine card	10/25/40GbE OCP Mezzanine cards	10/25/50GbE OCP Mezzanine cards
<b>I/O expansion</b>	Per node: 1x 16 PCIe front facing slot 1x 16 OCP Mezzanine card 2.0 Type 1	1x PCIe x16 slot for HBA/RAID options 1x PCIe x16 Mezzanine slot for NIC	1x 16 PCIe front facing slot 1x 16 OCP Mezzanine card 2.0 Type 1
<b>Storage controller</b>	Per node: Embedded SATA 3.0 controller via Intel C620 series chipset	PMC 8885 RAID Card or LSI 9300-8e HBA	LSI 9400-16i or LSI 9305-16i HBA card
<b>Power supply</b>	800W 2x Platinum redundant PSU or 1600W 2x Platinum redundant PSU	2x 2400W hot-plug N+N Power Supplies	(2) 1600W hot-plug N+N Power Supplies
<b>Management</b>	Per node: ASPEED AST2500, dedicated 1GbE management port, IPMI 2.0, Redfish, KVM over IP	ASPEED AST2400, dedicated management port, IPMI 2.0, KVM over IP	ASPEED AST2400 management, IPMI 2.0, KVM over IP
<b>Warranty</b>	3-0-0	3-0-0	3-0-0

\* Available 1H 2019

### HPE Pointnext

**HPE Pointnext** leverages our breadth and depth of technical expertise and innovation to help to accelerate digital transformation. The comprehensive portfolio includes Advisory, Professional, and Operational Services designed to help evolve and grow today and into the future.

- **HPE Datacenter Care** offers a tailored operational support solution built on core deliverables. It includes hardware and software support, a team of experts to help personalize deliverables and share best practices, as well as optional building blocks to address specific IT and business needs.

- **HPE Proactive Care** is an integrated set of hardware and software support including an enhanced call experience with start to finish case management helping resolve incidents quickly and keeping IT reliable and stable.

- **HPE Foundation Care** helps when there is a hardware or software problem offering several response levels dependent on IT and business requirements.

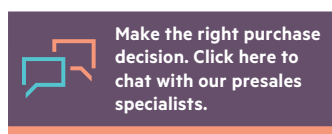
**Advisory Services** includes design, strategy, road map, and other services to help enable the digital transformation journey, tuned to IT and business needs. Advisory Services helps customers on their journey to hybrid cloud, **Big Data**, and the edge.

**Professional Services** helps integrate the new solution with project management, installation and startup, relocation services, and more. We help mitigate risk to the business so there is no interruption when new technology is being integrated in the existing IT environment.

### 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](https://hpe.com/info/cloudline)



Share now

Get updates

© Copyright 2015–2019 Hewlett Packard Enterprise Development LP. The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

Intel and Intel Xeon are trademarks of Intel Corporation in the U.S. and other countries. All other third-party marks are property of their respective owners.

4AA5-5883ENW, June 2019, Rev. 9

