

# 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."

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 to open design specifications, 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.
- **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 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, 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 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 CL2100 Gen10 Server



HPE Cloudline CL2200 Gen10 Server

<b>Processor family</b>	2 x Intel® Xeon® Processor Scalable Family, Supporting 6100, 5100, 4100, and 3100 Series Processors	(2) Intel Xeon Processor Scalable Family, Supporting 6100, 5100, 4100, and 3100 Series Processors	
<b>Form factor</b>	1U	2U Rack (87.5 x 438 x 730 mm; 3.44" x 17.24" x 28.74")	
<b>Cooling support</b>	Front to back, hot plug, N+1 redundancy	Front to back, Non-redundancy	
<b>Storage support</b>	<b>SFF chassis</b> (10) Front SFF SAS/SATA hot plug HDD/SSD Optional 2 SFF Front NVMe module (occupy two bays at front) Optional internal 4 PCIe M.2	<b>LFF chassis</b> (12) Front LFF SAS/SATA hot plug HDD/SSD Optional (2) rear SFF Optional (4) internal PCIe M.2 via PCIe card	<b>SFF Chassis</b> (24) Front SFF SAS/SATA Hot plug HDD/SSD Optional (4) Front NVMe (Occupied 4 Front drive space) Optional (2) rear SFF Optional (4) internal PCIe M.2 via PCIe card
<b>Memory</b>	24x DDR4, 2666 MHz RDIMM and LRDIMM	(24) DDR4 2666 MHz RDIMM and LRDIMM	
<b>Network support</b>	<b>Base:</b> (2) 1GbE embedded NIC <b>Optional card:</b> OCP Mezz or PCIe 3.0	<b>Base:</b> (2) 1GbE embedded NIC <b>Optional card:</b> OCP Mezz 2.0 Type 1 or PCIe 3.0	
<b>I/O expansion</b>	<b>CPU1 Riser one:</b> 1 x16 FHHL <b>CPU2 Riser one:</b> 1 x16 FHHL <b>CPU1:</b> OCPx1	<b>CPU0:</b> 4 x8 PCIe3 FHHL <b>OR</b> 1 x16 PCIe3 FHHL + 2 x8 PCIe3 FHHL slots <b>CPU0:</b> 1 x OCP Mezz 2.0 Type 1 <b>CPU1:</b> 2 x8 PCIe3 FHHL + 2 x8 PCIe3 HHHL <b>OR</b> 1 x16 PCIe3 FHHL + 2 x8 PCIe3 HHHL <b>OR</b> 1 x16 PCIe3 FHHL + 1 x16 PCIe3 HHHL <b>OR</b> 2 x8 PCIe3 FHHL + 1 x16 PCIe3 HHHL	
<b>Storage controller</b>	(12) ports Standard Intel® chipset SATA Options SAS/STAT RAID or HBA via PCIe card	(12) + (2) ports Standard Intel chipset SATA Options SAS/STAT RAID or HBA via PCIe card	
<b>Power supply</b>	<b>Standard:</b> 800W 2x Platinum redundant PSU	(2) 1200W 80 Plus Platinum Redundant PSU	
<b>Management</b>	ASPEED AST2500, dedicated 1GbE management port, IPMI v2.0, Redfish 1.04, KVM over IP. AMI firmware	ASPEED 2500 with dedicated 1GbE management port, IPMI v2.0, KVM over IP. AMI firmware	
<b>Warranty</b>	3-0-0	3-0-0	

## Technical specifications: HPE Cloudline Servers



HPE Cloudline CL3100 Gen9 Server



HPE Cloudline CL3150 Gen10 Server



HPE Cloudline CL5200 Gen9 Server

<b>Processor family</b>	Up to 2 Intel Xeon E5-2600 v4 Series, up to 135W	1x AMD EPYC 7000 SoC, up to 180W	Up to 2 Intel® EP E5-2600 v4 Series Processors
<b>Form factor</b>	1U	1U	4U
<b>Cooling support</b>	Front to back, hot swap, N+1 redundancy (up to 120W TDP)	Front to back, 8 non-hot swap, N+1 redundancy	5x hot plug N+1 Fans

## Family data sheet

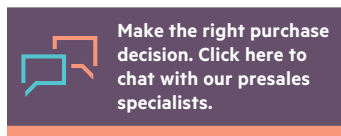
	HPE Cloudline CL3100 Gen9 Server	HPE Cloudline CL3150 Gen10 Server	HPE Cloudline CL5200 Gen9 Server
<b>Storage support</b>	12 LFF HDD/SSD Up to 4 rear SSD optional	(24) NVMe U.2 standard/low profile or (22) NVMe U.2 standard/low profile + (2) SATA SSD (1) Internal SD	(80) LFF SATA (6 Gb) drives in 1 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
<b>Memory</b>	16x DDR4 up to 2400 MHz DIMMs	8x DDR4 ECC 2666 MHz DIMMs	16x DDR4 DIMM slots @ up to 2400 MHz
<b>Network support</b>	10/25/40GbE via OCP Mezz card	10GbE, 25/50GbE OCP Mezz cards, 100GbE PCIe Form Factor	10/25/40GbE OCP Mezz cards
<b>I/O expansion</b>	1 x16 PCIe slot 1 x16 OCP Mezz card 2.0	2 PCIe 3.0 slots 1 x16 Half Length 1 x16 OCP Mezz card 2.0 Type 1	1x PCIe x16 slot for HBA/RAID options 1x PCIe x16 Mezz slot for NIC
<b>Storage controller</b>	Embedded SATA 3.0 controller via Intel PCH	Integrated I/O—No chipset 128 lanes PCIe 3.0	PMC 8885 RAID Card or LSI 9300-8E HBA
<b>Power supply</b>	550W/800W Redundant PSU	1600W RPS	2x 2400W hot plug N+N Power Supplies
<b>Management</b>	ASPEED AST2400, dedicated 1 Gb management port, IPMI v2.0, KVM over IP	ASPEED AST2500, dedicated 1 Gb management port, IPMI v2.0, Redfish, KVM over IP	ASPEED AST2400, dedicated management port, IPMI v2.0, KVM over IP
<b>Warranty</b>	3-0-0	3-0-0	3-0-0

## 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.

### Operational Services

- **HPE Flexible Capacity** is a new consumption model to manage on-demand capacity, combining the agility and economics of public cloud with the security and performance of on-premises IT.



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- **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 IT, Big Data, and the Intelligent 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)

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