

### Overview

#### HPE Edgeline e920d Server Blade

##### **HPE Edgeline e920d outperforms in ruggedized edge environments in Public Sector, Defense, Retail, and more.**

The HPE Edgeline e920d Server Blade is a multi-workload powerhouse designed to deploy edge compute close to where the data is being generated, conserving uplink bandwidth, connectivity cost, lowering security and data risk, greatly reducing time to actionable insight. This server blade is designed to be installed in the Size, Weight, and Power (SWaP) optimized Edgeline EL8000 Converged Edge System.

Leveraging the 3rd generation Intel® Xeon® Scalable processor family, HPE Edgeline e920d Server Blades provide a high-performance system optimized for ruggedized environments. System designed to exceed rigorous compliance standards, while being efficiently size, weight, and power optimized. Using high performance options such as M.2 NVMe storage with secure encrypted drive functionality helped enable an operating temperature range of 0C to 55C, and a highly performant compute solution.

##### **HPE Edgeline e920d improves Public Sector customer success right out of the box with a full feature stack.**

The Edgeline e920 and e920d Server Blades provide a choice of compute density on the e920 1U or I/O Expansion options in the e920d 2U which enables the optimal configuration for your needs. These server blades offer a full suite of supported options such as GPUs, networking, storage, and more.

If you already have a previous generation blade, modular architecture makes upgrades and servicing a breeze. All generations of server blades are fully compatible with the HPE Edgeline EL8000. By mixing blade designs and generations, you can easily run two applications side-by-side or upgrade an existing chassis system.

##### **HPE Edgeline e920d has enhanced manageability & security at the edge.**

HPE Edgeline e920d Server Blades with HPE iLO 5 and Silicon Root of Trust mitigate risk in mission-critical edge environments. With 3 years of iLO Advanced included standard, the HPE Edgeline e920d is readily managed right out of the box. With reduced IT skillsets in an increasingly vast edge environment, HPE manageability systems improve the ability to configure, monitor, and update your system from any location. By leveraging iLO 5 capability, managing your system with health monitoring and firmware management is easy. Blade provides a broad range of configuration choices in networking, storage, and I/O for optimizing your unique edge workloads. The Solid-State Drives are TCG Opal Compliant Self-Encrypting Drive (SED).

**Notes:** The Edgeline EL8000 system provides 4 independent 1U slots for configuring either ProLiant e910 1U Server Blades, ProLiant e910 2U Server Blades, Edgeline e920 Server Blades, Edgeline e920d Server Blades or a combination of these. Integrated switch options are available in the chassis for easily creating a cluster-in-a-box across the blades.

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Overview



Edgeline e920d Blade Server - Front View

**Item Description**

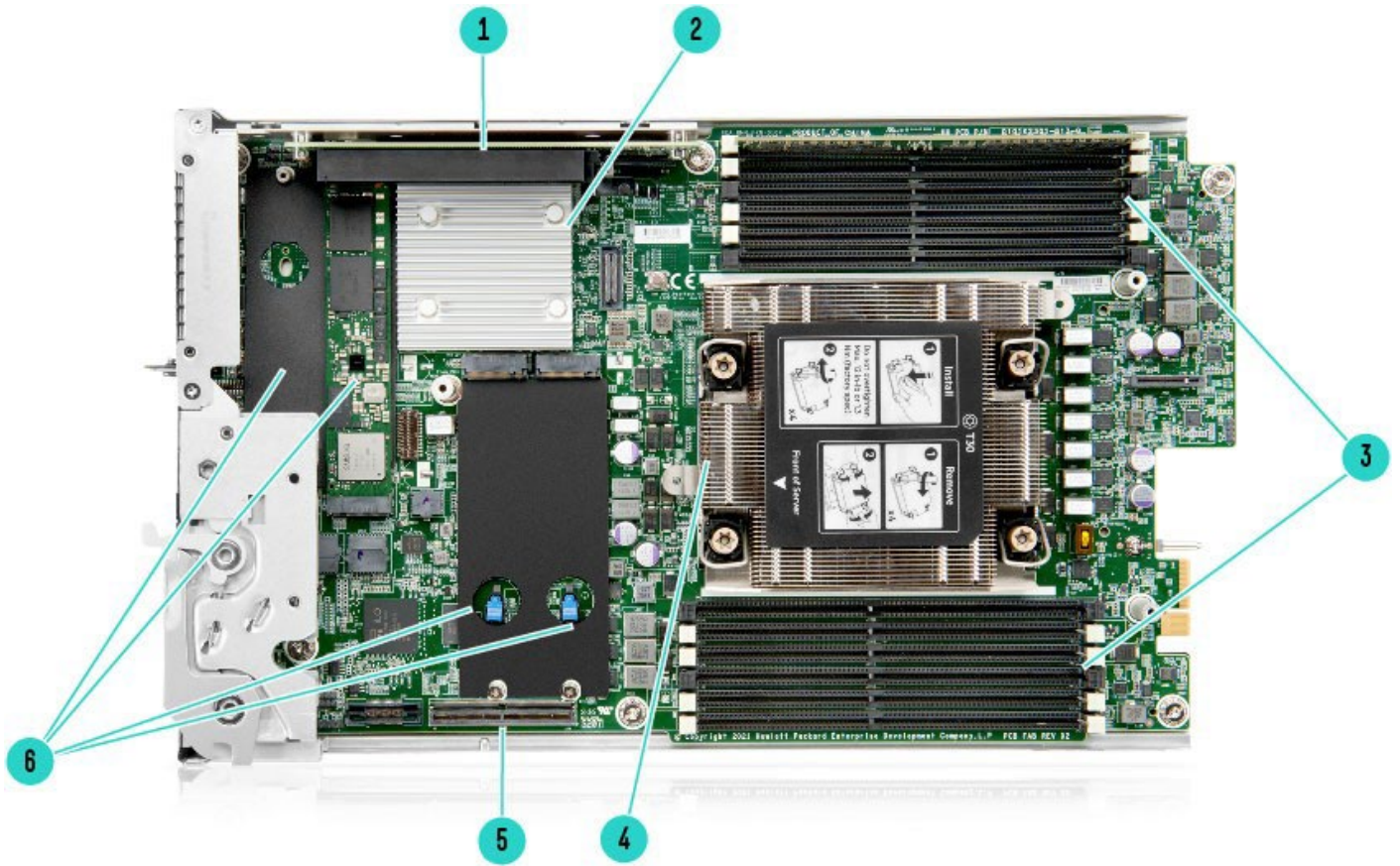
- 1. Expansion top for additional PCIe slots in the 2U blade
- 2. Two (2) Half height, half-length PCIe slots (Right Riser)
- 3. One (1) USB 3.0 port
- 4. Display port connector
- 5. Release latch
- 6. Power LED and Button
- 7. Health LED
- 8. UID LED and Button
- 9. Two (2) Full height, full-length, PCIe slots (Left Riser)

**Item Description**

- 6. Power LED and Button
- 7. Health LED
- 8. UID LED and Button
- 9. Two (2) Full height, full-length, PCIe slots (Left Riser)



Overview



Edgeline e920d Blade Server - Interior View

Item	Description	Item	Description
1.	Left PCIe Riser Slot	4.	CPU Socket
2.	Heatsink (Chipset)	5.	M.2 NVMe Riser – fits four (4) M.2 2280 or 22110 SSDs
3.	Twelve (12) DDR4 DIMM slots	6.	M.2 SSD slots – fits four (4) M.2 2280 or 22110 SSDs



## Standard Features

### Processor

3 <sup>rd</sup> Generation Intel® Xeon® Scalable Processor Family							
Intel® Xeon® SP Processor	Frequency GHz	Cores	L3 Cache MB	Power Watts	UPI Links	DDR4 MT/s	Max Memory TB
Platinum 8380	2.3	40	60	270	3	3200	6
Platinum 8368	2.4	38	57	270	3	3200	6
Platinum 8351N	2.4	36	54	225	3	3200	6
Platinum 8352V	2.1	36	54	195	3	3200	6
Gold 6314U	2.3	32	48	205	3	3200	6
Gold 6338N	2.2	32	48	185	3	3200	6
Gold 6330N	2.2	28	42	165	3	3200	6
Gold 6330	2.0	28	42	205	3	3200	6
Gold 6336Y	2.4	24	36	185	3	3200	6
Gold 6312U	2.4	24	36	185	3	3200	6
Gold 5318N	2.1	24	36	150	3	3200	6
Gold 6338T	2.1	24	36	165	3	3200	6
Gold 5320T	2.3	20	30	150	3	2933	6
Gold 6346	3.1	16	36	205	3	3200	6
Gold 6334	3.6	8	18	165	3	3200	6
Gold 5315Y	3.2	8	12	140	3	2933	6
Silver 4310	2.1	12	18	120	2	2667	6
Silver 4309Y	2.6	8	12	105	2	2667	6

#### Notes:

- For more information regarding Intel® Xeon® SP, please see the following URL:  
<https://www.intel.com/content/www/us/en/products/details/processors/xeon/scalable.html>
- Support for Intel Optane Persistent Memory 200 Series.
- The Edgeline e920 and e920d server blades are only available as a single-socket system, so UPI capability is not used
- The maximum theoretical memory capacity is shown in the table, but the physical maximum of the e920 or e920d blade will be determined by the maximum memory used. For example, with 12 x 128GB memory modules = 1.54TB memory max in practice.

### Chipset

Intel® C621A Chipset

**Notes:** For more information regarding chipset, please see the following URL:

<https://ark.intel.com/content/www/us/en/ark/products/208266/intel-c621a-chipset.html>

### Graphics

Integrated Video Standard

- Video modes up to 1920 x 1200@60Hz (32 bpp)
- 16MB Video Memory

HPE iLO 5 system management memory

- 32 MB Flash
- 4 Gbit DDR 3 with ECC protection



## Standard Features

### On System Management Chipset

HPE iLO 5 ASIC

**Notes:** Read and learn more in the [iLO QuickSpecs](#)

### Memory

#### HPE Edgeline DDR4 Registered (RDIMM), Load Reduced (LRDIMM)

Supported DIMMs	DDR4-3200	
DIMM Slots Available	12	12 DIMM slots per processor, 8 channels per processor, 2 DIMMs per channel
Maximum Capacity (LRDIMM)	1.5 TB	12 x 128GB LRDIMM
Maximum Capacity (RDIMM)	768GB	12 x 64GB RDIMM
Maximum Capacity (Intel Persistent Memory only)	1TB	4 x 256GB Persistent Memory

#### Notes:

- Rules under “Memory” section must be followed for Configuring and Mixing of DIMMs.
- Usable system memory is constrained by the configured processor type
- For General Server Memory and Persistent Memory Population Rules and Guidelines for Gen10 Plus see details here: <http://www.hpe.com/docs/memory-population-rules>

### Memory Protection

For details on the HPE Server Memory Options RAS feature, visit:

<http://www.hpe.com/docs/memory-ras-feature>.

### Expansion slots

The Edgeline e920d Server Blade I/O Options are configured through the selection of Riser – either a Right side (RR) , Left side (LR) or a combination of the two

#### Edgeline e920d (2U)

Slot#	Slot Form Factor	Riser	Technology	Bus Width	Connector Width
<b>Edgeline e920d</b>	Slot Form Factor	Riser	Technology	Bus Width	Connector Width
Slot 1 (Optional) <sup>1</sup>	Full-height, full-length	LR	PCIe 4.0	X16	X16
Slot 2 (Optional) <sup>1</sup>	Full-height, full-length	LR	PCIe 4.0	X8	X16
** OR **					
Slot 3 (Optional) <sup>2</sup>	Half-height, half-length	RR	PCIe 4.0	X16	X16
Slot 4 (Optional) <sup>2</sup>	Half-height, half-length	RR	PCIe 4.0	X16	X16

#### Notes:

- <sup>1</sup>When e920d server is configured with P40897-B21 HPE Edgeline e920d 2x16 FHFL Storage Enablement FIO Kit, the EL8000 Storage Bay (P17293-B21) can also be ordered.
- <sup>2</sup>When e920d 2U server is configured with P40897-B21 HPE Edgeline e920d 2x16 HHHL Right Riser Kit. If this slot is configured with M.2 Enablement Kit (P40898-B21), no right side PCIe I/O slots will be available.



## Standard Features

### Storage Options

PCIe controllers are Integrated in the Intel® Chipset						
SSD Slot #	Physical Location	Technology	Bus Width	Connector Width	Form Factor	Supported Sizes
1-2	System Board	NVMe, PCIe-3 from CPU	x4	x4	M.2 2280/22110	256GB 375GB 512GB 960GB 1TB 1.92TB 2TB 3.84TB
3-4	System Board	NVMe, PCIe-3 from PCH	x1, x2	x1, x2	M.2 2280/22110	256GB 375GB 512GB 960GB 1TB 1.92TB 2TB 3.84TB
5-8	Expansion Option	NVMe, PCIe-3 from CPU	x4	x4	M.2 2280/22110	256GB 375GB 512GB 960GB 1TB 1.92TB 2TB 3.84TB

### Maximum Internal Storage

- M.2 2280 NVMe solid state devices
  - 16.4TB
  - 8 x 2TB
- M.2 22110 NVMe solid state device
  - 30.4TB
  - 8 x 3.8TB

### Storage Controllers

#### NVMe Boot Device

- HPE NS204i-p NVMe PCIe3 OS Boot Device

#### Essential RAID Controller

- Intel® Virtual RAID on CPU (Intel® VROC)
 

**Notes:** Integrated RAID with Intel® XEON® Scalable Processors. Intel VROC for HPE ProLiant Gen10 Plus is an enterprise, Integrated RAID solution specifically designed for NVMe SSDs connected directly to the CPU. Intel VROC is an integrated solution utilizing Intel CPU to RAID or HBA direct connected drives and supports both Intel® SFF SSDs and HPE SFF SSDs.

### Power Supply

Refer to the Edgeline EL8000 Quick Specs

<https://h20195.www2.hpe.com/v2/getdocument.aspx?docname=a00067727enw>



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## Standard Features

### System Fans

Refer to the Edgeline EL8000 Quick Specs

<https://h20195.www2.hpe.com/v2/getdocument.aspx?docname=a00067727enw>

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### Interfaces

- Server Blade Power LED/button
  - Server Blade UID LED/button
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### Operating Systems and Virtualization Software

- **RedHat Enterprise Linux (RHEL)**
- **Microsoft Windows Server**
- **Ubuntu**
- **VMWare**
- **WindRiver**

#### Notes:

- Only 64-bit versions of these operating systems are supported
  - For more information on the Hewlett Packard Enterprise Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server, please visit our OS Support Site at <http://www.hpe.com/info/ossupport> and our driver download page which can be found from the HPE Support Center: <http://www.hpe.com/support/hpesc>
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### Industry Standard Compliance

- PXE Support
  - PCIe 3.0 Compliant
  - WOL Support
  - Microsoft® Logo certifications
  - USB 2.0 and 3.0 Support
  - ACPI 2.0 Compliant
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### HPE Server UEFI ROM

Unified Extensible Firmware Interface (UEFI) is an industry standard that provides better manageability and more secured configuration than the legacy ROM while interacting with your server at boot time. The HPE Edgeline e920d Server Blades default to UEFI and does not support Legacy BIOS Boot Mode.

**Notes:** The UEFI System Utilities function is analogous to the HPE ROM-Based Setup Utility (RBSU) of legacy BIOS. For more information, please visit <http://www.hpe.com/servers/uefi>

UEFI enables numerous new capabilities specific to HPE ProLiant servers such as:

- Secure Boot
- Operating system specific functionality
- Support for > 2.2 TB (using GPT) boot drives
- USB 3.0 Stack
- Embedded UEFI Shell
- Mass Configuration Deployment Tool using RESTful API for iLO 4
- PXE boot support for IPv6 networks
- Boot support for option cards that only support a UEFI option ROM
- Network Stack configurations

**Notes:** For UEFI Boot Mode, boot environment and OS image installations should be configured properly to support UEFI.

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### Form Factor

HPE Edgeline e920d Server Blades plug into the HPE Edgeline EL8000 System. Maximum two e920d Server Blades per EL8000 chassis

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## Standard Features

### Embedded Management

#### HPE Integrated Lights-Out Advanced (HPE iLO Advanced)

The ProLiant e920d Server Blades comes with 3 years of iLO Advanced features by default. For more detail on these features: <https://psnow.ext.hpe.com/doc/PSN332279USEN.pdf>

Monitor your servers for ongoing management, service alerting, reporting and remote management with HPE iLO.

Learn more at <http://www.hpe.com/info/ilo>

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### UEFI

Configure and boot your servers securely with industry standard Unified Extensible Firmware Interface (UEFI).

Learn more at <http://www.hpe.com/servers/uefi>.

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### RESTful API

RESTful API for iLO 5 is Redfish 1.0 conformance for simplified server management such as configuration and maintenance tasks based on modern industry standards.

Learn more at <http://www.hpe.com/info/restfulapi>

**Notes:** Full REST API is available when the server is installed in a HPE Edgeline System

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### Intelligent Provisioning

Hassle free server and OS provisioning for 1 or few servers with Intelligent Provisioning.

Learn more at <http://www.hpe.com/servers/intelligentprovisioning>

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### Server Utilities

#### Edgeline Component Pack

The HPE Edgeline Component Pack, is the delivery mechanism for firmware updates on the HPE Edgeline System. Before using your system for the first time, verify that you have the latest drivers, firmware, and system software installed.

For more information, see the Edgeline Component Pack Update Guide on the Hewlett Packard Enterprise website:

<http://www.hpe.com/info/edgeline-docs>

**Notes:** The Edgeline Component Pack is only supported when the server is installed in a HPE Edgeline System

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#### Scripting Tool Kit and Windows PowerShell

Provision 1 to many servers using your own scripts to discover and deploy them with Scripting Tool Kit (STK) for Windows and Linux or Scripting Tools for Windows PowerShell. <http://www.hpe.com/servers/powershell>.

**Notes:** This Feature will be available when the server is installed in a HPE Edgeline System.

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#### RESTful Interface Tool

RESTful Interface tool is a scripting tool to provision using RESTful API for iLO5 to discover and deploy servers at scale.

Learn more at <http://www.hpe.com/info/resttool>

**Notes:** This Feature will be available when the server is installed in a HPE Edgeline System.

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## Standard Features

### Security

- Serial interface control
- Administrator's password
- Power-on password
- TPM2.0
- UEFI
- iLO 5 has 12 customizable user accounts and SSL encryption
- iLO 5 can be disabled via a Global Setting
- iLO Advanced supports directory services integration

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### HPE Trusted Platform Module

HPE Trusted Platform Module 2.0 is embedded on the Server Blade and can be enabled and disabled using the BIOS.

#### Notes:

- The TPM (Trusted Platform Module) is a microcontroller chip that can securely store artifacts used to authenticate the server platform. These artifacts can include passwords, certificates and encryption keys. Windows® BitLocker™ Drive Encryption (BitLocker) is a data protection feature available in Windows Server® 2008, 2012/2012 R2. BitLocker leverages the enhanced security capabilities of a Trusted Platform Module (TPM) version 2.0. The TPM works with BitLocker to help protect user data and to ensure that a server running Windows Server has not been tampered with while the system was offline. For more information about TPM, including a white paper, go to: <https://www.hpe.com/h20195/v2/gethtml.aspx?docname=c04939549>
- ProLiant OS pre-installed units will come with the partition required for TPM deployment.
- The TPM key is unique to every TPM deployed server and must be retained. Misplacing or losing the key could result in data loss.

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### Network

#### Intel® I210 1GbE

- Accessed through management network port on EL8000 chassis management module.
  - 1GbE maintenance network link, coming from the blade into the chassis.
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## Service and Support

### HPE Services

No matter where you are in your digital transformation journey, you can count on HPE Services to deliver the expertise you need when, where and how you need it. From planning to deployment, ongoing operations and beyond, our experts can help you realize your digital ambitions.

<https://www.hpe.com/services>

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### Consulting Services

No matter where you are in your journey to hybrid cloud, experts can help you map out your next steps. From determining what workloads should live where, to handling governance and compliance, to managing costs, our experts can help you optimize your operations.

<https://www.hpe.com/services/consulting>

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### HPE Managed Services

HPE runs your IT operations, providing services that monitor, operate, and optimize your infrastructure and applications, delivered consistently and globally to give you unified control and let you focus on innovation.

[HPE Managed Services | HPE](#)

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### Operational services

Optimize your entire IT environment and drive innovation. Manage day-to-day IT operational tasks while freeing up valuable time and resources. Meet service-level targets and business objectives with features designed to drive better business outcomes.

<https://www.hpe.com/services/operational>

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### HPE Complete Care Service

HPE Complete Care Service is a modular, edge-to-cloud IT environment service designed to help optimize your entire IT environment and achieve agreed upon IT outcomes and business goals through a personalized experience. All delivered by an assigned team of HPE Services experts. HPE Complete Care Service provides:

- A complete coverage approach -- edge to cloud
- An assigned HPE team
- Modular and fully personalized engagement
- Enhanced Incident Management experience with priority access
- Digitally enabled and AI driven customer experience

<https://www.hpe.com/services/complecare>

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### HPE Tech Care Service

HPE Tech Care Service is the operational support service experience for HPE products. The service goes beyond traditional support by providing access to product specific experts, an AI driven digital experience, and general technical guidance to not only reduce risk but constantly search for ways to do things better. HPE Tech Care Service delivers a customer-centric, AI driven, and digitally enabled customer experience to move your business forward. HPE Tech Care Service is available in three response levels. Basic, which provides 9x5 business hour availability and a 2-hour response time. Essential which provides a 15-minute response time 24x7 for most enterprise level customers, and Critical which includes a 6-hour repair commitment where available and outage management response for severity 1 incidents.

<https://www.hpe.com/services/techcare>

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## Service and Support

### HPE Lifecycle Services

HPE Lifecycle Services provide a variety of options to help maintain your HPE systems and solutions at all stages of the product lifecycle. A few popular examples include:

- Lifecycle Install and Startup Services: Various levels for physical installation and power on, remote access setup, installation and startup, and enhanced installation services with the operating system.
- HPE Firmware Update Analysis Service: Recommendations for firmware revision levels for selected HPE products, taking into account the relevant revision dependencies within your IT environment.
- HPE Firmware Update Implementation Service: Implementation of firmware updates for selected HPE server, storage, and solution products, taking into account the relevant revision dependencies within your IT environment.
- Implementation assistance services: Highly trained technical service specialists to assist you with a variety of activities, ranging from design, implementation, and platform deployment to consolidation, migration, project management, and onsite technical forums.
- HPE Service Credits: Access to prepaid services for flexibility to choose from a variety of specialized service activities, including assessments, performance maintenance reviews, firmware management, professional services, and operational best practices.

**Notes:** To review the list of Lifecycle Services available for your product go to:

<https://www.hpe.com/services/lifecycle>

For a list of the most frequently purchased services using service credits, see the [HPE Service Credits Menu](#)

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### Other Related Services from HPE Services:

#### HPE Education Services

Training and certification designed for IT and business professionals across all industries. Broad catalogue of course offerings to expand skills and proficiencies in topics ranging from cloud and cybersecurity to AI and DevOps. Create learning paths to expand proficiency in a specific subject. Schedule training in a way that works best for your business with flexible continuous learning options.

<https://www.hpe.com/services/training>

#### Defective Media Retention

An option available with HPE Complete Care Service and HPE Tech Care Service and applies only to Disk or eligible SSD/Flash Drives replaced by HPE due to malfunction.

Consult your HPE Sales Representative or Authorized Channel Partner of choice for any additional questions and services options.

#### Parts and Materials

HPE will provide HPE-supported replacement parts and materials necessary to maintain the covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements.

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product QuickSpecs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

#### How to Purchase Services

Services are sold by Hewlett Packard Enterprise and Hewlett Packard Enterprise Authorized Service Partners:

- Services for customers purchasing from HPE or an enterprise reseller are quoted using HPE order configuration tools.
- Customers purchasing from a commercial reseller can find services at <https://ssc.hpe.com/portal/site/ssc/>



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## Service and Support

### AI Powered and Digitally Enabled Support Experience

Achieve faster time to resolution with access to product-specific resources and expertise through a digital and data driven customer experience

Sign into the HPE Support Center experience, featuring streamlined self-serve case creation and management capabilities with inline knowledge recommendations. You will also find personalized task alerts and powerful troubleshooting support through an intelligent virtual agent with seamless transition when needed to a live support agent.

<https://support.hpe.com/hpesc/public/home/signin>

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### Consume IT On Your Terms

**HPE GreenLake** edge-to-cloud platform brings the cloud experience directly to your apps and data wherever they are—the edge, colocations, or your data center. It delivers cloud services for on-premises IT infrastructure specifically tailored to your most demanding workloads. With a pay-per-use, scalable, point-and-click self-service experience that is managed for you, HPE GreenLake edge-to-cloud platform accelerates digital transformation in a distributed, edge-to-cloud world.

- Get faster time to market
- Save on TCO, align costs to business
- Scale quickly, meet unpredictable demand
- Simplify IT operations across your data centers and clouds

To learn more about HPE Services, please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized Channel Partner. Contact information for a representative in your area can be found at "Contact HPE"

<https://www.hpe.com/us/en/contact-hpe.html>

For more information

<http://www.hpe.com/services>

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## Configuration Information

This section lists some of the steps required to configure a Factory Integrated Model. To ensure only valid configurations are ordered, Hewlett Packard Enterprise recommends the use of a Hewlett Packard Enterprise approved configurator. Contact your local sales representative for information on configurable product offerings and requirements

**Notes:** If you want to configure a server blade only, proceed to Step 2

### Step 1: Base Configuration (Choose System)

#### HPE Edgeline System

HPE Edgeline EL8000 5U Configure-to-order Front Cabling Chassis P12379-B21

##### Notes:

- Refer to the Edgeline EL8000 documentation for details on how to configure the chassis <https://h20195.www2.hp.com/v2/getdocument.aspx?docname=a00067727enw>
  - o The Edgeline EL8000 chassis can fit a combination of blade options. It includes the Edgeline Chassis Manager (ECM) module.
  - o Functional systems require at least 1 power supply to be configured, with 2 power supplies recommended for redundancy
  - o Storage Bay and chassis integrated switch options are available. Selecting the Storage Bay option will restrict choice of compute blades.

### Step 2: Select ProLiant Server Blade

#### HPE Edgeline Server Blade

**Notes:** Min:1, Max:4

HPE Edgeline e920 Configure-to-order Blade Server P40891-B21

HPE Edgeline e920d Configure-to-order Blade Server P40892-B21

##### Notes:

- Each blade operates independently and 1U/2U blades can be mixed in the same EL8000 chassis for a total of 4U height. The e920 is 1U in height and the e920d is 2U in height. The e910 1U is comparable in size to the e920 and the e910 2U is comparable in size to the e920d.
- An iLO Advanced license with 3 years of support is provided by default with each server blade (1 per blade).

### Step 3: Choose Required Options (per blade)

#### Processor Option (Min:1, Max:1)

Intel Xeon-Platinum 8380 2.3GHz 40-core 270W Processor Kit for HPE Edgeline e920 P40909-B21

Intel Xeon-Platinum 8368 2.4GHz 38-core 270W Processor Kit for HPE Edgeline e920 P40907-B21

Intel Xeon-Platinum 8351N 2.4GHz 36-core 225W Processor Kit for HPE Edgeline e920 P40913-B21

Intel Xeon-Platinum 8352V 2.1GHz 36-core 195W Processor Kit for HPE Edgeline e920 P40914-B21

Intel Xeon-Gold 6314U 2.3GHz 32-core 205W Processor Kit for HPE Edgeline e920 P40910-B21

Intel Xeon-Gold 6338N 2.2GHz 32-core 185W Processor Kit for HPE Edgeline e920 P40902-B21

Intel Xeon-Gold 6330N 2.2GHz 28-core 165W Processor Kit for HPE Edgeline e920 P40911-B21

Intel Xeon-Gold 6330 2.0GHz 28-core 205W Processor Kit for HPE Edgeline e920 P40918-B21

Intel Xeon-Gold 6336Y 2.4GHz 24-core 185W Processor Kit for HPE Edgeline e920 P40905-B21

Intel Xeon-Gold 6312U 2.4GHz 24-core 185W Processor Kit for HPE Edgeline e920 P40908-B21

Intel Xeon-Gold 5318N 2.1GHz 24-core 150W Processor Kit for HPE Edgeline e920 P40903-B21

Intel Xeon-Gold 6338T 2.1GHz 24-core 165W Processor Kit for HPE Edgeline e920 P40915-B21

Intel Xeon-Gold 5320T 2.3GHz 20-core 150W Processor Kit for HPE Edgeline e920 P40919-B21

Intel Xeon-Gold 6346 3.1GHz 16-core 205W Processor Kit for HPE Edgeline e920 P40912-B21



## Configuration Information

Intel Xeon-Gold 6334 3.6GHz 8-core 165W Processor Kit for HPE Edgeline e920	P40904-B21
Intel Xeon-Gold 5315Y 3.2GHz 8-core 140W Processor Kit for HPE Edgeline e920	P40916-B21
Intel Xeon-Silver 4310 2.1GHz 12-core 120W Processor Kit for HPE Edgeline e920	P40917-B21
Intel Xeon-Silver 4309Y 2.8GHz 8-core 105W Processor Kit for HPE Edgeline e920	P40906-B21

### Notes:

- The Edgeline e920 and e920d server blades are only available as a single-socket system (1 processor per blade).
- The Xeon-Platinum 8380 and Xeon-Platinum 8368 are available at a reduced thermal range, lower than the maximum 55 °C for other processor options. For 8368 CPU - Supported temperature up to 45°C Ambient. For 8380 CPU - Supported temperature up to 40°C Ambient.

### Memory Options (Min: 1, Max: 12)

HPE Edgeline 16GB (1x16GB) Dual Rank x8 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P41238-B21
HPE Edgeline 32GB (1x32GB) Single Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P43982-B21
HPE Edgeline 64GB (1x64GB) Dual Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P41240-B21
HPE Edgeline 128GB (1x128GB) Quad Rank x4 DDR4-3200 CAS-22-22-22 Load Reduced Smart Memory Kit	P41241-B21

### Notes:

- Mixing of RDIMMs and LRDIMMs within the same blade is not allowed
- Up to four (4) persistent memory kits may be configured and require RDIMMs or LRDIMMs to be configured.
- Mixing of different LRDIMM capacity kits is not allowed (i.e. 64GB & 128GB)
- Ensure that the selected processor supports the configured memory footprint of the blade e.g. Intel Xeon 8280M is required to use the maximum 1.5TB capacity (Twelve 128TB LRDIMMs).

### Riser options on Edgeline e920d Server Blade

**Notes:** One left and one right option can be configured simultaneously.

#### Left Riser Options (Min: 0, Max: 1)

HPE Edgeline e920d x16/x16 FHFL Storage Enablement Left Riser Kit	P40896-B21
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**Notes:** If the EL8000 storage bay option is selected at the chassis level, the e920d Left Riser must be configured.

#### Right Riser Options (Min: 0, Max: 1)

HPE Edgeline e920d x16/x16 HHHL Right Riser Kit	P40897-B21
HPE Edgeline e920 4-slot NVMe M.2 Enablement Kit	P40898-B21

### Notes:

- This Right Riser supports two (2) PCIe x16 sized I/O slots.
- The M.2 Enablement Kit (P40898-B21) supports four (4) M.2 NVMe SSD slots, which can fit 2280 or 22110 sizes. There are no PCIe I/O add-in card slots available with this riser option.

### Solid State Drives

#### Installed on e920d System Board (Min: 0, Max: 4)

HPE Edgeline 960GB NVMe Gen4 Mainstream Performance Mixed Use M.2 22110 Extended Temp PM9A3 SSD	P49021-B21
HPE Edgeline 1.92TB NVMe Gen4 Mainstream Performance Mixed Use M.2 22110 Extended Temp PM9A3 SSD	P49023-B21
HPE Edgeline 3.84TB NVMe Gen4 Mainstream Performance Mixed Use M.2 22110 Extended Temp PM9A3 SSD	P49025-B21



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## Configuration Information

### Installed on Right Riser (Min: 0, Max: 4)

HPE Edgeline 960GB NVMe Gen4 Mainstream Performance Mixed Use M.2 22110 Extended Temp PM9A3 SSD	P49021-B21
HPE Edgeline 1.92TB NVMe Gen4 Mainstream Performance Mixed Use M.2 22110 Extended Temp PM9A3 SSD	P49023-B21
HPE Edgeline 3.84TB NVMe Gen4 Mainstream Performance Mixed Use M.2 22110 Extended Temp PM9A3 SSD	P49025-B21

### Notes:

- These SSDs are TCG Opal Compliant Self-Encrypting Drive (SED).
  - The P40898-B21 HPE Edgeline e920 4-slot NVMe M.2 Enablement Kit provides 4 M.2 slots that can fit 22110 SSDs. Only NVMe SSDs are supported.
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### Step 4: Choose Additional Options

Choose additional options for Factory Integration from sections below

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## Additional Options

### HPE Security

HPE Edgeline EL8000 Trusted Supply Chain FIO Configuration P45076-B21

**Notes:** HPE Trusted Supply Chain (P45076-B21) is an optional security upgrade intended for agencies and regulated industries needing enhanced security and compliance needs. Applying this option to an e920 or e920d CTO server blade ensures it is built in the USA in a secured facility by vetted HPE personnel assigned to the manufacturing processes. A multitude of checkpoints/inspections for malicious microcode and counterfeit parts are performed throughout the server build, and additional safeguards are put in place against cyber-exploits throughout the server lifecycle. The e920 and e920d server blades are currently supported in the USA, exclusively, and is Trade Agreement Act (TAA) compliant.

HPE iLO Common Password FIO Setting P08040-B21

**Notes:** Replaces iLO default randomized password by an HPE defined common password. HPE highly recommends changing this password immediately after the initial onboarding process. Customers who want to choose their own custom iLO default password should use the HPE Factory Express Integration Services

Learn more at: <http://www.hpe.com/security>

### Accessory

HPE Edgeline e920 10GbE 2-port Network Mezzanine Kit P40899-B21

**Notes:**

- HPE e920 10GbE 2p Network Mezzanine Kit (P40899-B21) is the Mellanox CX6-LX.
- HPE e920 10GbE 2p Network Mezzanine Kit (P40899-B21) does not consume PCIe slot.

### PCIe Slot Options

Ensure that the riser type configured in the e920d blade can fit the selected PCIe add-in card option

### Networking

HPE Ethernet 10Gb 2-port SFP+ X710-DA2 Adapter 727055-B21

HPE Ethernet 1Gb 4-port BASE-T I350-T4V2 Adapter 811546-B21

HPE Ethernet 10/25Gb 2-port SFP28 MCX4121A-ACUT Adapter 817753-B21

Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE P08443-B21

Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE P08458-B21

Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 Low Profile Adapter for HPE Compute Edge Server P63673-B21

Intel E810-2CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter for HPE P41611-B21

Intel E810-CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter for HPE P21112-B21

Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 Adapter for HPE P25960-B21

Pensando Distributed Services Platform DSC-25 Enterprise 10/25Gb 2-port SFP28 Card P26966-B21

**Notes:** If the Pensando DSP DSC-25 (P26966-B21) is selected, an accompanying RTU license must be ordered.

### Accelerators and associated accessories

NVIDIA T4 16GB Computational Accelerator for HPE ROW29C

NVIDIA L4 24GB PCIe Accelerator for HPE S0K89C

NVIDIA A2 16GB PCIe Non-CEC Accelerator for HPE R9H23C

NVIDIA A40 48GB PCIe Non-CEC Accelerator for HPE R9S37C

Qualcomm Cloud AI 100 Accelerator for HPE R9Q09A

Intel Flex 140 Accelerator to HPE R9H94A

Intel Flex 170 Accelerator to HPE R9H95A

HPE ProLiant e910 CPU 8-pin Cable Kit P12393-B21

HPE ProLiant e910 PCIe 8-pin Cable Kit P12405-B21

HPE ProLiant e910 300W GPU Power Enablement Kit P12383-B21

**Notes:**

- Please provide the BOM for the Edgeline R&D team to review if 4 units of NVIDIA T4 or L4 or A2 GPUs are selected.





## Additional Options

- Each HPE Edgeline e920d Server Blade supports up to four Qualcomm Cloud AI 100 PCIe Accelerators. The Qualcomm Cloud AI 100 Accelerator is a PCIe Gen4, half-height, half-length form factor rated at 75Watt TDP, with up to 16GB of onboard DRAM.
- HPE supports the Qualcomm “Standard” edition spec’d at 14 Qualcomm® AI Cores.
- The CPU 8-pin cable kit (P12393-B21) and GPU Power Enablement Kit (P12383-B21) must be selected when HPE NVIDIA A100 or HPE NVIDIA A40 is selected.
- The PCIe 8-pin cable kit (P12405-B21) and GPU Power Enablement Kit (P12383-B21) must be selected when Intel Flex 170 Accelerator for HPE is selected.

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### Supported Cables

HPE Edgeline 1/10Gb SFP+ SR 400m Transceiver	P44258-B21
HPE Edgeline 10/25Gb SFP28 SR 100m Transceiver	P44259-B21
HPE 25Gb SFP28 SR 100m Transceiver	845398-B21
HPE 100Gb QSFP28 MPO SR4 100m Transceiver	845966-B21
HPE Networking Comware X240 40G QSFP+ QSFP+ 1m Direct Attach Copper Cable	JG326A
HPE Networking Comware X240 40G QSFP+ QSFP+ 3m Direct Attach Copper Cable	JG327A
HPE Networking Comware X240 40G QSFP+ QSFP+ 5m Direct Attach Copper Cable	JG328A
HPE Networking Comware X240 40G QSFP+ to 4x10G SFP+ 1m Direct Attach Copper Splitter Cable	JG329A
HPE Networking Comware X240 40G QSFP+ to 4x10G SFP+ 3m Direct Attach Copper Splitter Cable	JG330A
HPE Networking Comware X240 40G QSFP+ to 4x10G SFP+ 5m Direct Attach Copper Splitter Cable	JG331A
HPE BladeSystem c-Class 10Gb SFP+ SR Transceiver	455883-B21
HPE Aruba Networking 1G SFP RJ45 T 100m Cat5e Transceiver	J8177D
HPE Networking X240 10G SFP+ SFP+ 1.2m DAC Cable	JD096C
HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 3m Direct Attach Copper Cable	487655-B21

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### HPE Boot Controllers

HPE NS204i-p x2 Lanes NVMe PCIe3 x8 OS Boot Device	P12965-B21
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## Technical Specifications

### Physical Dimensions

#### Server Cartridge

- **Dimensions (H x W x D)**  
1.60 x 8.39 x 14.3in (4.05 x 21.30 x 36.3cm) – e920 1U blade  
3.28 x 8.39 x 14.3in (8.33 x 21.30 x 34.93cm) – e920d 2U blade
- **Typical Power**  
300W per e920d
- **Max Power**  
400W per e920d

#### System Inlet Temperature

- **Extended Operating**  
HPE Edgeline EL8000 with ProLiant e920d Server Blades: Depending on hardware configuration, the supported system inlet range can be extended up to 55°C. Compliance to ASHRAE A3 and A4 standards is also available. The approved hardware configurations for this system are listed in the Edgeline system documentation.
- **Standard Operating**  
HPE Edgeline EL8000 Chassis with ProLiant e920d Server Blades: Typical range is 10° to 35°C (50° to 95°F) with altitude derating.

#### Emissions Classification (EMC)

- **FCC Rating**
  - Class A
- **Normative Standards**
  - CISPR 22;
  - EN55022;
  - EN55024;
  - FCC CFR 47, Pt 15;
  - ICES-003;
  - CNS13438;
  - K22;
  - K24;
  - VCCI-CISPR 32;
  - EN 60950-1;
  - EC 60950-1

**Notes:** Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.

#### Environment-friendly Products and Approach - End-of-life Management and Recycling

Hewlett Packard Enterprise offers end-of-life **product return, trade-in, and recycling programs**, in many geographic areas, for our products. Products returned to Hewlett Packard Enterprise will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE Directive (2012/19/EU) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the [Hewlett Packard Enterprise web site](#). These instructions may be used by recyclers and other WEEE treatment facilities as well as Hewlett Packard Enterprise OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.



## Summary of Changes

Date	Version History	Action	Description of Change
26-Feb-2024	Version 15	Changed	Networking product names were updated. Standard Features and Additional Options sections were updated.
08-Jan-2024	Version 14	Changed	Service and Support section was updated.
13-Nov-2023	Version 13	Changed	Service and Support and Additional Options sections were updated. (HPE Security, Accelerators and associated accessories)
18-Sep-2023	Version 12	Changed	Standard Features section was updated. (Added the Operating Systems)
07-Aug-2023	Version 11	Changed	Additional Options section was updated (Removed the GPU Power Cable)
24-Jul-2023	Version 10	Changed	Additional Options section was updated (Removed the L40 GPU)
10-Jul-2023	Version 9	Changed	Additional Options section was updated (Networking and GPU)
03-Apr-2023	Version 8	Changed	Overview, Configuration Information and Additional Options sections were updated. Removed: P23535-B21 – Intel Optane 256GB persistent memory 200 Series for HPE – OBS: 02/28/2023
10-Jan-2023	Version 7	Changed	Accelerators and Support Cables were updated. Standard Features and Additional Options sections were updated
01-Aug-2022	Version 6	Changed	Additional Options section was updated Obsolete SKUs were removed
20-Jun-2022	Version 5	Changed	Added Accelerators Additional Options section was updated
02-May-2022	Version 4	Changed	Added HPE Trusted Supply Chain and Updated the SSDs and Networking Configuration Information and Additional Options sections were updated
07-Mar-2022	Version 3	Changed	Storage Controllers, Networking, Accelerators, and Associated Accessories were updated Overview, Standard Features, Additional Options sections and Technical Specifications sections were updated
13-Dec-2021	Version 2	Changed	Standard Features, Configuration Information and Additional Options sections were updated
01-Nov-2021	Version 1	New	New QuickSpecs



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