

HPE ProLiant DL360p Gen8

1U rack server, dual Intel Xeon E5-2600 / v2, 24 x DDR3, iLO 4

FORM FACTOR	SOCKETS	MEMORY	DRIVE BAYS	MANAGEMENT
1U rack	2 x LGA2011	24 x DDR3	4 or 8	iLO 4

Overview

Refurbished HPE ProLiant DL360p Gen8 1U rack servers, tested and stocked in Doha, with dual Intel Xeon E5-2600 or E5-2600 v2 processors, 24 DDR3 DIMM slots and 4 or 8 front bays, delivered across Qatar within a day.

The DL360p Gen8 is HPE's dual-socket 1U server from 2012, refreshed for v2 processors in 2013, and the direct equivalent of the Dell R620. It is two generations behind the DL360 Gen10 and one behind the Gen9, which is precisely why it is the cheapest dual-socket 1U HPE server we sell. For a lab, a test bench, a Proxmox or ESXi host that will never see production traffic, a firewall or a backup target, it still does the job at a price that makes a modern server look extravagant. Go in with clear eyes: DDR3 memory, 6 Gb/s SAS, and no more System ROM updates from HPE.

Chassis options

The DL360p Gen8 shipped in two front-bay layouts. The chassis cannot be converted from one to another after purchase, so choose by how many drives you need and what type.

CHASSIS	FRONT BAYS	DRIVE TYPES	TYPICAL USE
4 LFF	4	SAS, SATA	Bulk capacity, backup targets
8 SFF	8	SAS, SATA, SSD	General virtualisation and application hosts

An 8 SFF unit can take a 2 SFF bay in the optical slot to reach 10. An internal SD card slot gives a hypervisor boot device. The DL360e Gen8, a lower-cost variant on E5-2400 processors, is a different platform; check the model label.

Processors

The DL360p Gen8 takes Intel Xeon E5-2600 (Sandy Bridge-EP, 2012) and E5-2600 v2 (Ivy Bridge-EP, 2013) processors in two LGA2011 sockets. v2 CPUs need System ROM P71 from 2013 or later and unlock 1866 MT/s memory. Both CPUs in a system must be identical. The list below covers the SKUs most commonly found in refurbished units; the platform supports up to 12 cores per socket.

Xeon E5-2600 v2 (Ivy Bridge-EP)

PROCESSOR	CORES	BASE CLOCK	TDP	MEMORY SPEED
Xeon E5-2609 v2	4	2.5 GHz	80 W	1333 MT/s
Xeon E5-2620 v2	6	2.1 GHz	80 W	1600 MT/s
Xeon E5-2630 v2	6	2.6 GHz	80 W	1600 MT/s
Xeon E5-2640 v2	8	2.0 GHz	95 W	1600 MT/s
Xeon E5-2650 v2	8	2.6 GHz	95 W	1866 MT/s
Xeon E5-2660 v2	10	2.2 GHz	95 W	1866 MT/s
Xeon E5-2670 v2	10	2.5 GHz	115 W	1866 MT/s
Xeon E5-2680 v2	10	2.8 GHz	115 W	1866 MT/s
Xeon E5-2690 v2	10	3.0 GHz	130 W	1866 MT/s
Xeon E5-2695 v2	12	2.4 GHz	115 W	1866 MT/s
Xeon E5-2697 v2	12	2.7 GHz	130 W	1866 MT/s

Xeon E5-2600 (Sandy Bridge-EP)

PROCESSOR	CORES	BASE CLOCK	TDP	MEMORY SPEED
Xeon E5-2620	6	2.0 GHz	95 W	1333 MT/s
Xeon E5-2630	6	2.3 GHz	95 W	1333 MT/s
Xeon E5-2640	6	2.5 GHz	95 W	1333 MT/s
Xeon E5-2650	8	2.0 GHz	95 W	1600 MT/s
Xeon E5-2660	8	2.2 GHz	95 W	1600 MT/s
Xeon E5-2670	8	2.6 GHz	115 W	1600 MT/s

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PROCESSOR	CORES	BASE CLOCK	TDP	MEMORY SPEED
Xeon E5-2680	8	2.7 GHz	130 W	1600 MT/s
Xeon E5-2690	8	2.9 GHz	135 W	1600 MT/s

The E5-2650 v2 to E5-2697 v2 range is the sweet spot on this platform: v2 silicon, 1866 MT/s memory support and 8 to 12 cores per socket at a very low price.

Memory

Twenty-four DDR3 DIMM slots, twelve per processor across four channels. Registered (RDIMM), unbuffered (UDIMM) and load-reduced (LRDIMM) modules are supported; types cannot be mixed. With one CPU installed, only the twelve slots on that side are usable. DDR3 is inexpensive on the used market, which is part of the appeal of this generation.

MODULE	CAPACITIES	MAXIMUM SYSTEM MEMORY
RDIMM	4 GB, 8 GB, 16 GB, 32 GB	768 GB with 24 x 32 GB
LRDIMM	32 GB	768 GB with 24 x 32 GB

Populate all four channels per CPU in matched sets: 8, 16 or 24 DIMMs in total for a dual-CPU system. Three DIMMs per channel drops the speed to 1066 or 1333 MT/s.

Storage and RAID

Drive support depends on the cages fitted. All cages are hot-plug. HPE Smart Array controllers come in two forms: modular (fitted to a dedicated slot) and PCIe card. The controller options are:

CONTROLLER	TYPE	CACHE	RAID LEVELS	NOTES
Dynamic Smart Array B120i	Software RAID (SATA)	None	0, 1, 10	Onboard; SATA only, adequate for boot mirrors
Smart Array P420i	Hardware RAID	512 MB, 1 GB or 2 GB FBWC	0, 1, 5, 6, 10, 50, 60	The standard controller on this generation; 6 Gb/s SAS
Smart Array P822	Hardware RAID	2 GB FBWC	0, 1, 5, 6, 10, 50, 60	External SAS ports for D2600 or D2700 expansion shelves

Supported drive types are 6 Gb/s SAS and SATA in hard disk and SSD form; there is no NVMe support on this generation. Drives need HPE Gen8 or Gen9 Smart Carriers, which are the same family and easy to source.

Networking and expansion

Onboard networking comes from the FlexibleLOM slot, which ships with one of these adapters and can be swapped:

- HPE 331FLR quad-port 1 GbE
- HPE 530FLR-SFP+ dual-port 10 GbE SFP+
- HPE 533FLR-T dual-port 10 GbE BASE-T

Beyond the FlexibleLOM, the DL360p Gen8 offers two PCIe Gen3 slots (one full-height x16 and one low-profile x8), with a third available on some riser configurations. That is enough for a Fibre Channel HBA and a 10 GbE adapter. Full-height or double-width GPUs need the 2U DL380p Gen8.

Power supplies

Two hot-plug redundant Common Slot power supply bays, configured 1+1. Options are 460 W and 750 W in Platinum grade, plus a 1200 W unit. A dual-CPU system with a full memory load and a Smart Array generally sits within the 750 W envelope. Both supplies in a system should be the same rating.

Management

Every DL360p Gen8 includes iLO 4 with a dedicated management port. iLO Standard covers remote power, health monitoring and basic alerts; iLO Advanced adds the virtual console, virtual media and remote firmware updates. On current firmware the HTML5 console works in any modern browser without plugins, and a basic Redfish API is available. Advanced licences can be added to any unit, and Intelligent Provisioning handles bare-metal OS installs.

Physical specification

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Form factor	1U rack, 2 socket
Height	43.2 mm (1U)
Width	426 mm
Depth	Approximately 695 mm without bezel
Weight	Up to approximately 16 kg fully configured
Rails	HPE Easy Install rails
Operating temperature	10 to 35 °C continuous

Supported operating systems

Windows Server 2012 R2 and 2016; Red Hat Enterprise Linux 6 and 7; SUSE Linux Enterprise Server 11 and 12; Ubuntu Server LTS releases; VMware ESXi 5.5, 6.0, 6.5 and 6.7; and Proxmox VE. Windows Server 2019 and later and ESXi 7.0 and later are not supported on this generation, and ESXi 7 will refuse to install on it. If you need a current hypervisor, buy the Gen9 or Gen10 equivalent instead.