



# HPE ProLiant MicroServer Gen10

It's small, but HPE's ProLiant MicroServer Gen10 stands head and shoulders above all other entry-level servers

**SCORE** ★★★★★

**PRICE** As reviewed, £319 exc VAT from hpe.com

HPE's clever little ProLiant MicroServer Gen8 has garnered a loyal following in the small business market, but it's now over three years old and in need of a refresh. Enter the generation-skipping MicroServer Gen10, which delivers a big boost in performance while retaining its predecessor's space-saving dimensions.

The Gen10 isn't as pretty as the Gen8: the latter's sleek, brushed aluminium bezel is replaced with a black plastic door, and the status light across the front has also gone. Still, the door on the Gen10 feels fairly secure: to prevent interference, you can flip down a sliding tab on the side of the drive bay, fit the main cover and padlock it shut.

Inside, things are more positive. The Gen8's aging Intel Celeron is replaced by AMD's fresh X3000 series of Opteron APUs, and fast DDR4 ECC UDIMM memory is used across the board: all models start with 8GB, and can be upgraded to 32GB.

The entry model uses a 1.6GHz dual-core Opteron X3216 with quad Radeon R7 GPU cores, and supports DDR4 speeds up to 1,600MHz. Next up is the 1.8GHz quad-core/6 GPU X3418, which supports 2,400MHz DDR4. We tested the top-dog 2.1GHz quad-core X3421, which ups the GPU core count



to eight at an affordable MSRP of £465.

Storage is handled by an embedded Marvell 88SE9230 chip, which drives the Gen10's four cold-swap SATA drive bays (via mini-SAS connectors). Unlike the Gen8, no brackets are required for standard-sized drives: to install a disk, you fit the provided mounting screws to each corner, then simply slide it in until the tab at the front locks. RAID options are the same as the Gen8's embedded B120i – the Marvell chip supports mirrors, stripes and RAID10 – and LFF-SFF converter trays are offered as an optional extra.

There's also a fifth SATA connector, for the media bay on top of the drive cage. You can populate this with a slim optical drive kit, or you can go for the 7mm SATA SSD mounting kit.

Expansion options have been improved: the motherboard offers an open-ended PCI-E Gen3 x8 slot, plus a second x4 slot (though this only supports x1 speeds). The faster slot is certified for HPE's Smart Array SAS RAID cards, so users can even convert the MicroServer to SAS support.

Upgrading the memory is a cinch, as the two DIMM slots on the right-hand side are unobstructed. The motherboard is easily removed by unplugging three cables, undoing one

**ABOVE** To prevent interference, you can padlock a tab on the Gen10's drive bay



**"Smaller offices will appreciate how quiet the Gen10 is: the SPLnFFT iOS app on our iPad recorded only 42dB at 1m"**

**BELOW** There's no need for Windows as HPE offers the MicroServer Gen10 with ClearOS preinstalled

securing screw and sliding the tray out the back. The Opteron APU sits under a passive heatsink – all cooling is handled by a 10cm chassis fan. Small offices will appreciate how quiet this is: the SPLnFFT iOS app on our iPad recorded only 42dB at 1m.

The one disappointment about the Gen10 is the absence of HPE's iLO4 remote management chip. This means its Intelligent Provisioning feature isn't supported, although we had no problems booting the system from a Windows Server 2016 ISO and loading it with the drivers inside 30 minutes.

For Linux users, HPE has partnered

with ClearCenter to offer selected Gen10 models with a 1TB drive preinstalled with the ClearOS open-source Linux software. This offers a slick browser-based management

console which we found easy to use – you can load apps for gateway, DNS, Active Directory plus firewall services and add others to provide antivirus, web content filtering and much more. The Community edition is free, while the paid-for Home and Enterprise editions let you turn the MicroServer into an all-in-one business server with access to over 300 apps.

The Gen10's extra power, larger memory capacity and more versatile storage options make it a great choice for budget-conscious offices seeking their first server. **DAVE MITCHELL**

## SPECIFICATIONS

Desktop chassis • 2.1GHz AMD Opteron X3421 APU • 8GB 2,400MHz DDR4 EEC UDIMM (max 32GB) • 4 x cold-swap SATA drive bays • embedded Marvell 88SE9230 (supports RAID0,1,10) • additional SATA port • PCI-E Gen3 x8 • PCI-E Gen3 x4 (x1 bandwidth) • 2 x Gigabit Ethernet • 2 x USB 2 • 4 x USB 3 • USB 2 (internal) • VGA • 2 x DisplayPort 1.2 • 200W internal PSU • 230 x 267 x 235mm (WDH) • measured power: 26W idle, 70W peak • 1yr on-site warranty

