

SERVE 200X MORE CDN USERS AT LOWER TCO

Get more out of content delivery networks (CDNs) by moving to HPE's most affordable all-flash configuration, thanks to the new HPE SATA VRO SSDs that are engineered specifically for it. Serve 200x more users in the same rack space at the most affordable HPE SSD price point.¹

By simply upgrading the storage in your HPE ProLiant servers from 7.2K HDDs to HPE SATA VRO SSDs at the lowest HPE SSD price, you can deliver:



200x

more HD streams per server so you can scale your user base²



225x

better performance so more users can watch the same video seamlessly³



1 hour

faster ingest when you add 10 TB content to your network⁴



2x

more endurance than typical CDN workloads require⁵



TYPICAL CDN WORKLOAD

Storage access pattern: Random reads and sequential writes

Storage I/O size: 128K

Read/write ratio: 95% read/5% write

How the workload works:

- Content (more than 1 GB movies, shows, games) is ingested into streaming platform.
- Multiple-user access staggers playback and download, resulting in random and concurrent reads, which HDDs aren't optimized for.
- Seamless user experience is expected, making SSDs the new norm.

Content delivery (CDN) test configuration

The following table presents detailed information on the systems tested. Both configurations used HPE ProLiant DL380 Gen10 servers; the only difference is one configuration used 7.2K HDDs and the other used HPE SATA VRO SSDs. Given the critical role that storage plays in CDN workloads and overall HPE ProLiant performance, upgrading to an all-flash configuration is one of the best and most affordable ways to get more out of HPE ProLiant servers.

^{1, 2, 3, 4, 5} Based on the product's technical specifications

Product brief

TABLE 1. Test configurations

Cluster config.	Technical details	7.2K HDDs*	HPE SATA VRO SSDs*
Server platform	1x 2U HPE ProLiant DL380 Gen10 (2 CPU sockets, 12 LFF storage bays, x86)	\$55,602	\$82,650
CPU	2x Intel® Xeon® Platinum 8268 (24 core, 2.7 GHz)	Same	Same
Memory	384 GB DDR4-2666 MT/s (12x 32 GB modules)	Same	Same
Network	25 Gb 2-port FLR-SFP28 BCM57414 adapter	Same	Same
Power supply	500W Flex Slot Platinum hot-plug power supply kit	Same	Same
Warranty and rail kit	HPE ProLiant DL380 Gen10 standard 3-year warranty with LFF easy install rail kit	Same	Same
OS and apps	Microsoft Windows Server 2016 and Microsoft SQL Server 2017	Same	Same
HBA/RAID card (w/BBU)	HPE Smart Array P816i-a SR Gen10 controller and HPE 96W Smart Storage lithium-ion battery	Same	Same
Storage	8x 8 TB HPE 7.2K SAS LFF HDDs or 8x 7.68 TB HPE SATA VRO LFF SSDs	Similar	Similar
Real-world results	Serve more content to more users and deliver better experience (HD streams per platform; 1 stream = 1 user)	18 users	4,011 users
	Random read IOPS performance per drive (more performance = more users can watch the same video at same time)	400 IOPS	90,000 IOPS
	Time needed to add 10 TB of new content to network per day (Sequential write performance per drive x number of drives/10 TB)	1 hr 42 mins	40 mins
	New asset ingest speed per drive (sequential write MB/s per drive)	215 MB/s	540 MB/s
	Endurance (GB written per day and DWPD)	More than enough	More than enough

* Configuration testing done by Micron and prices based on HPE MSRPs retrieved on September 21, 2020. Pricing and performance may vary based on your HPE configuration.

Contact your HPE sales rep for more information on how to affordably transition to all-flash with HPE SATA VRO SSDs.

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hpe.com/us/en/servers/server-options.html

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