

Multi-Client Study

2020 HPC Multi-Client Study: HPC Storage, Storage Interconnects, Trends, and Forecasts

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This annual study is part of the sixth edition of Hyperion Research's high-performance computing (HPC) end-user-based tracking of the HPC marketplace. It covers 194 user sites with 1,849 HPC systems. This report focuses on storage and interconnects.

HYPERION RESEARCH OPINION

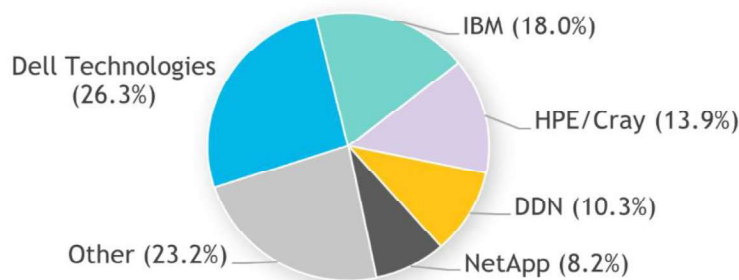
This document explores the storage and interconnect elements of the HPC market based on the most recent annual end-user study conducted by Hyperion Research.

Report highlights include:

- Storage is expected to be the fastest growing HPC segment through 2024 (9.3% CAGR).
- Adoption of flash-based storage devices is accelerating, approaching adoption parity with 45% of users' primary data at the surveyed sites now on SSDs and the remaining 55% on HDDs.
- InfiniBand increased its lead as top storage interconnect with adoption rising from 34.0% of sites to 43.3%, while second-place Ethernet increased adoption from 23.3% of sites to 28.9%. *Note that Ethernet leads in system interconnects.*
- From 2017 to 2020 average storage size per site increased 6-fold from 3.3PBs to 19.8PBs, and average aggregate bandwidth grew more than 9 times from 92.3 GB/s to 858 GB/s.
- Dell Technologies (formerly Dell EMC) supplanted IBM as top HPC storage vendor for surveyed sites' primary systems (Figure 1).

FIGURE 1

Top Storage Vendors



Note: n=194

Source: Hyperion Research, 2020

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