Worldwide High Performance Computing 2018 Total Market Model and 2019–2023 Forecast: Products and Services

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May 2019

EXECUTIVE SUMMARY

This Intersect360 Research report presents the 2018 total market model and five-year forecast for the overall High Performance Computing (HPC) market, segmented into product and services categories, including servers, storage, services, software, networks, cloud, and other products. The forecast horizon is from 2019 through 2023, with compound annual growth rates (CAGRs) using 2018 as a base.

Intersect360 Research defines HPC as the use of servers, clusters, and supercomputers—plus associated software, tools, components, storage, and services—for scientific, engineering, or analytical tasks that are particularly intensive in computation, memory usage, or data management. Intersect360 Research reports available in this series include the following segmentations:

- *Products and Services (this report):* servers, storage, networks, software, service, cloud, other
- *Economic sectors:* industry, government, academia
- *Vertical markets:* academia, national security, national research labs, national agencies, state or local governments, bio sciences, chemical engineering, consumer product manufacturing, electronics, energy, financial services, large product manufacturing, media and entertainment, retail, transportation, other
- *Regions:* North America, EMEA, Asia-Pacific, Latin America
- *Server class (HPC server revenue):* entry-level, midrange, high-end, supercomputer
- *Cloud categories (HPC cloud revenue):* raw cycles, cloud storage, application hosting (SaaS), infrastructure hosting (IaaS, PaaS), other
- *Software categories (HPC software revenue):* operating environments, developer tools, middleware, storage software, transfer costs, application software, other
- *Services categories (HPC services revenue):* maintenance and repair, system engineering, system integration, training, programming services, other
- *HPC server market shares* (current year only, not forecast)
- *HPC storage market shares* (current year only, not forecast)

This was a solid year for the HPC market, although was some variability between categories. The total HPC market revenue was $36.1 billion in 2018, growing 3.2% over 2017. Public cloud consumption for HPC had a second strong year, with 16.0% growth. Spending on HPC servers grew 9.1%, driven in large part by end users shifting to more computationally rich environments, fueled greatly by new requirements in machine learning. HPC services declined, due to a number of market trends including: competition with the cloud and bundling of services with server sales.

The HPC market will grow at a 6.8% compound annual growth rate (CAGR) from 2018 through 2023. All product segments will show stable growth, while cloud computing for HPC will continue to grow at very high rates, especially in the near-term years in the forecast, before moderating in future years.

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