

# Worldwide High Performance Computing 2016 Total Market Model and 2017–2021 Forecast: Vertical Markets

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## EXECUTIVE SUMMARY

This Intersect360 Research report presents the 2016 total market model and five-year forecast for the overall High Performance Computing (HPC) market, segmented into vertical markets. The forecast horizon is from 2017 through 2021, with compound annual growth rates (CAGRs) using 2016 as a base.

Other Intersect360 Research reports provide forecast segmentations by product category (servers, storage, services, software, networking, cloud, and other), server class (entry-level, mid-range, high-end, supercomputer), geographic region, and economic sectors, as well as vendor shares for the current year for servers and for storage.

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 separately tracks the hyperscale market, which consists of arbitrarily scalable, web-facing application infrastructure in excess of \$1 million of annual spending from a given site.

Some of the key findings of this report include:

- The total worldwide HPC market (servers, storage, software, etc.) reached \$35.6 billion in 2016, up 3.5% from 2015.
- Intersect360 Research projects HPC revenue compound annual growth rate to be 4.3% CAGR from 2016 to 2021, reaching \$43.9 billion at the end of the forecast period.
- Financial services, the largest single commercial market, contributed over \$300 million of growth in 2016. Academia, the largest segment overall, was relatively flat compared to other vertical markets.
- The chemical engineering segment and the financial services segment will be important ones to watch over the next few years. We anticipate expanded use of HPC in chemical engineering, as simulation expands more beyond process modeling and into the discovery arena. Financial services, already the largest commercial segment, will continue to grow in risk management applications, and it is also one of the leading markets in the adoption of artificial intelligence and machine learning.

## TECHNOLOGIES COVERED IN THIS REPORT

- HPC system elements
  - Systems, clusters
  - Server technologies
- Storage elements
  - Storage systems
- Interconnect elements
  - System interconnects
- Software elements
  - Operating systems
- Services
- Cloud computing, grid computing, utility computing
- Other technology trends
  - Big Data trends
  - Government programs or investment in HPC

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