High Performance Computing (HPC) Market Research Report- Forecast to 2023

Report Information
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Synopsis of Global High-Performance Computing Market

Market Scenario

The data around enterprises in bulging up and therefore requires a high amount of mathematical calculations and computational capabilities to resolve business issues. High-performance computing was earlier used for training and simulation, a navigation system, and mostly in defense and aerospace. As this industrial vertical required high-performance computing capabilities, resulting in high-performance computing. This scenario is changed in recent times as there is huge demand from the industrial, and government. These sectors are using the data to churn out specific insights helpful for their organizations to carry out. The high-performance computing technology is emerging prominently in government for national defense and security requirements. HPC is proving beneficial for development and design of advanced vehicles, weapons, high-resolution image processing, satellite mapping, and cryptographic analysis. This is one of the reasons that tend the government to invest in high-performance computing.

Apart from the higher usage in the government sector, the high-performance computing is a system capable of solving complex, scientific, and business area problems. Various countries like the U.S. are adopting high-performance computing in different industry verticals. It has helped many industries and enterprise to discover new things, and innovate their products and services. And as the data keeps piling up and technology gets advanced, there is a huge need for data computation.

On a global scale, high-performance computing is highly adopted in aerospace, automotive, steel and welding, consumer packaged goods and manufacturing, energy consumption and production, healthcare, finance, sports and entertainment, weather forecast and space research.

Some of the protuberant drivers supporting the growth of the global High-Performance Computing market are identified as, a higher rate of HPC adoption in government, industrial, and enterprise application, need for high computational capabilities and complex application management, and adoption of cloud high-performance computing. However, lack of expertise and high cost in HPC maintenance, and advancement in high-performance workstations are some of the restraining factors for the High-Performance Computing market.

Segmentation

The High-Performance Computing market is segmented into component, deployment, and verticals.

Based on the component, the high-performance computing market is sub-segmented into the server, storage, networking devices, and software. The deployment segment is subdivided into on-premise, and on-cloud. Moreover, by verticals, the market is sub-categorized into BFSI, IT & telecommunications, retail, manufacturing, healthcare, energy & utilities, transportation and others.
Key Findings

- Global High-Performance Computing Market has generated USD 31 billion in 2017 and is expected to reach a market value of USD 50 billion by 2023 growing with 8% CAGR.
- By Component, Server is dominating the high-performance computing market in 2017 and is expected to grow by 12% CAGR, whereas, Networking Devices is projected to be the fastest growing segment.
- By Deployment: On-Premise deployment is dominating the market in 2017 whereas, On-Cloud is expected to be the fastest growing deployment method for HPC in coming future.
- By Vertical: BFSI is dominating the market in 2017 and is expected to grow by 8% CAGR. Whereas, IT & Telecommunication and Healthcare are expected to drive the market with highest CAGR, respectively during the forecast period 2017-2023.
- Geographically, North America region has been projected to hold the largest market share in the market whereas, Asia Pacific is expected to be the fastest growing market for high-performance computing.

Key Players


Regional Analysis

For this study, Market Research Future has segmented the global high-performance computing market in four different regions namely, North America, Europe, Asia Pacific, and the Rest of the World.

Global High-Performance Computing market, by region, is led by North America in 2017. The technological advancements, and developing supercomputing facilities are expected to drive the market in North America in the coming years. The U.S. is leading the market whereas Canada is expected to witness high growth rate in the coming future. Asia Pacific is considered to be the fastest growing market for high-performance computing due to increasing adoption of HPC for weather forecasting and research activities. However, Rest of the World is growing with steady growth rate during the forecast period 2017-2023.

Intended Audience

- HPC vendors
- System integrators
- Consultancy and advisory firms
- End-Users
- Data integration service providers
- Managed service providers
- Enterprise customers
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