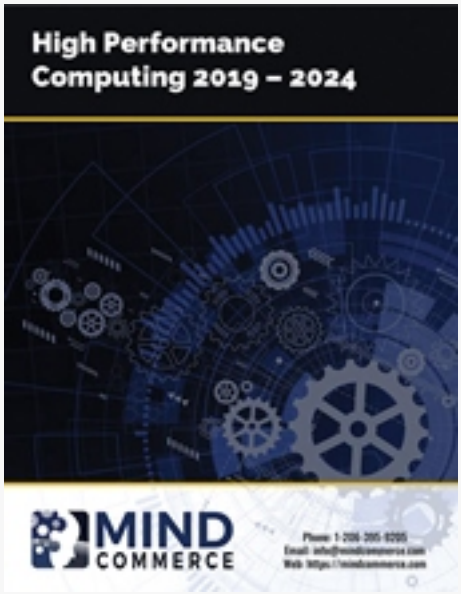
HPC Market Findings released by Mind Commerce

Sees AI as Catalyst for High Performance Computing Optimization and Enabler of Greater Supercomputer Availability to Small and Mid-sized Market Segments



HPC Market Report

SEATTLE, WA, UNITED STATES, June 26, 2019 /EINPresswire.com/ -- High Performance Computing (HPC) refers to high speed computation, which may be provided via a supercomputer or via parallel processing techniques such as leveraging clusters of computers to aggregate computing power. HPC is well-suited for applications that require high performance data computation such as certain financial services, simulations, and various R&D initiatives.

The market is currently dominated on the demand side by large corporations, universities, and government institutions. This is poised to change as HPC-as-a-Service (HPCaaS) becomes more commonly available, partially due to new on-demand supercomputer service offerings, and in part as a result of emerging AI based tools for engineers.

Accordingly, up to 43% of revenue will be directly attributable to the cloud-based business model via HPCaaS, which makes High Performance Computing solutions available to a much wider range of industry verticals and companies, thereby providing computational services to solve a much broader array of problems.

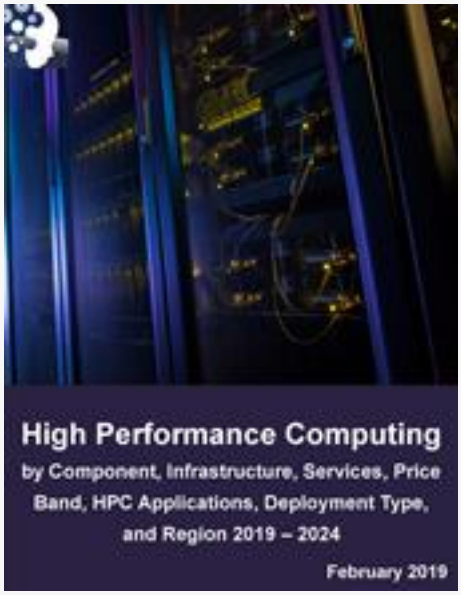
> “Very Long Tail Opportunity in HPC will be Realized through Use of AI Tools. HPC as a Service will Reach Scale Only through Greater Supercomputer Accessibility.”
>
> *Mind Commerce*

In a recent study, Mind Commerce conducted interviews with major players in the market as well as smaller, lesser known companies that are believed to be influential in terms of innovative solutions that are likely to drive adoption and usage of both cluster-based HPC and supercomputing.

In an effort to identify growth opportunities for the HPC market, the firm investigated market gaps including unserved and underserved markets and submarkets. The research and advisory firm uncovered a market situation in which HPC currently suffers from an accessibility problem as well as inefficiencies and supercomputer skill gaps. Stated differently, the market for HPC as a Service (e.g. access to high performance computing services) currently suffers from problems related to utilization, scheduling, and set-up time to run jobs on a supercomputers.

Mind Commerce identified start-ups and small companies working to solve these problems. For example, the company talked to the Co-founder and CEO of Braket Inc., which is a company that was a spin-off from the University of Toronto with the goal to build the next-gen optimization tools for HPCs using AI and Quantum Computing. Their focus: HPC scheduling. As supercomputing resources are typically scarce and expensive, scheduling is important to ensure

optimal computational workload scheduling.



HPC Market Sizing

The strategic advisory firm identified challenge areas such as some HPC platforms that have low utilization but (ironically) also high wait times. Scheduling can be a challenge in terms of workload time estimation. About 20% of jobs are computationally heavy 30% of jobs cannot be defined very well in terms of how long jobs will take (within 3 minute window at best). In many instances, users request substantive resources and don't actually use computing time.

In addition to the scheduling challenge, Mind Commerce also identified a company focused on solving additional problems such as computational planning and engineering. We spoke with the principal of a little known company called Microsurgeonbot, Inc. (doing business as MSB.ai), which is developing a tool for setting up computing jobs for supercomputers.

The company is working to solve major obstacles in accessibility and usability for HPC resources. The company focuses on solving a very important problem in HPC: Supercomputer job set-up and skills gap. Their solution known as "Guru" is poised to make supercomputing much more accessible, especially to engineers in small to medium sized businesses that do not have the same resources or expertise as large corporate entities.

High Performance Computing Market by Component, Infrastructure, Services, Price Band, HPC Applications, Deployment Types, Industry Verticals, and Regions 2019 – 2024 evaluates the HPC market including companies, solutions, use cases, and applications. Analysis includes HPC by organizational size, software and system type, server type and price band, and industry verticals. The report also assesses the market for integration of various artificial intelligence technologies in HPC. It also evaluates the exascale-level HPC market including analysis by component, hardware type, service type, and industry vertical.

In related research, Mind Commerce has also identified a strong relationship between future sixth generation (6G) solutions and HPC. More specifically, the 6G technology market will enable certain advanced capabilities such as wireless sensing and detection that will entail the use of enormous amounts of data. While some of this data will necessarily be handled by edge computing resources, much of it will require processing by more centralized HPC resources.

About Mind Commerce

Mind Commerce is an information services company that provides research and strategic analysis focused on the Information and Communications Technology (ICT) industry. Our ICT reports provide key trends, projections, and in-depth analysis for infrastructure, platforms, devices, applications, services, emerging business models and opportunities.

We focus on key emerging and disintermediating technology areas for service providers, technology providers, developers (communications, applications, content, and commerce), systems integrators and consultants, government organizations and NGOs, and the financial community. Visit us at https://mindcommerce.com/

MEDIA: We welcome discussions about our research in support of your news article, blog, or professional industry portal.

Contact us via email at Contact@MindCommerce.com or Call: +1 206 395 9205

Dawn Stokes
https://mindcommerce.com/
+1 206-395-9205
email us here
Visit us on social media:
Twitter