

High-Performance Computing (HPC) solutions

Enabling enterprises to accelerate innovation and optimize operations



In today's rapidly evolving technological landscape, High-Performance Computing (HPC) has become crucial for modern enterprises to process large data efficiently. It drives innovation in industries like manufacturing, life sciences and finance by enabling faster simulations and AI-driven insights.

New trends in HPC



AI and machine learning integration

HPC enhances AI and ML workloads by enabling faster model training and complex simulations.



Cloud-first HPC deployments

The shift to cloud-based HPC offers scalable, on-demand resources, reducing capital investments.



HPC-as-a-Service

Enterprises are adopting HPC-as-a-Service to access advanced infrastructure without upfront costs.



Sustainability in HPC

Focus on eco-friendly computing with energy-efficient architectures and carbon-neutral data centers

Challenges in HPC adoption

- Lack of automation and scalability
- Complexity of hybrid environments
- Ever-increasing data volumes
- Growing energy consumption
- Cybersecurity risks



HCLTech's HPC Offerings and solution approach

HCLTech's HPC solutions help businesses scale, optimize performance and achieve significant data processing and real-time analytics results. We provide a comprehensive HPC solution, from consultation to deployment and ongoing optimization, ensuring scalability and flexibility across all deployment models—on-premises, cloud or hybrid. Our phased-wise solution approach includes:

Consulting and assessment

Evaluate current HPC landscape and design customized solutions.

Infrastructure optimization

Automate job scheduling, optimize clusters and enhance operations.

Cloud-Native deployments

Seamlessly migrate workloads to the cloud for flexibility and scaling.

Sustainability and cost-efficiency

Use energy-efficient architectures and monitor performance to reduce costs.

Ongoing support

Monitor performance, generate reports and ensure best practices and compliance.

HPC-as-a-Service

Offer HPC in a flexible, pay-as-you-go model for greater customer flexibility.

Key benefits

Streamlined operations

Simplified cluster management and automated workflows.

Reduced Time-to-Market

Reduced processing times for large data sets and simulations, leading to quicker innovation cycles.

Cost optimization

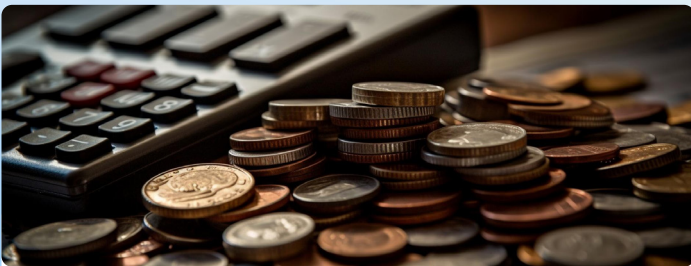
Minimize infrastructure costs by choosing appropriate deployment models, such as cloud-based or hybrid environments.

Enhanced sustainability

Efficiently scale operations to handle growing workloads, particularly in cloud and hybrid setups.



Success stories



Leading European EDA firm optimized cost and resources

Migrated workloads to the cloud, achieving substantial performance improvements with reduced capital expenditure.



Revamped HPC operations for automobile company

Successfully transitioned HPC infrastructure to Azure, optimizing performance, scalability and reducing operational costs by 25%.

Why HCLTech?

- Recognized as a leader in cloud and infrastructure services by top analysts (IDC, Everest, Gartner).
- Strategic partnerships with leading OEMs, cloud and storage providers.
- Expertise in infrastructure tuning, optimization and high-performance data analytics (HPDA).
- Strong focus on sustainability with energy-efficient HPC deployments.

Prepare for the Future of High-Performance Computing to unlock new opportunities and address growing challenges with HCLTech's HPC solutions.

For more information, you may write to us at HCBU-PMG@hcltech.com