



Engineer with excellence

HPE ANSYS Solution for CAE

Improve the product development cycle from design concept to final validation and accelerate it faster than ever before.

Development challenges

Barriers to efficient and cost-conscious product development

Computer-aided engineering (CAE) accelerates the product design process. Over the past 10 years, computer simulations have replaced time-consuming and costly physical prototypes with computer-generated models that fuel innovation. From concept to reality, simulations provide a fast and efficient information-based development process.

However, most companies that leverage CAE fail to realize the full benefits of the tools and technologies. As suppliers to major corporations, small to medium enterprises (SMEs) are responsible for the majority of product design across several industries. Yet these organizations face significant challenges as they try to expand their CAE capabilities in an attempt to speed time-to-market and stay ahead of the competition.

If your product design organization is:

- Experiencing efficiency loss within the product design cycle due to long turnaround time for complex simulations
- Limited to the number of simulation models it can run at a single time
- Facing limitations to the size and complexity of the models it can create
- Experiencing delays in productivity due to hardware constraints
- Not efficiently utilizing resources and technology due to isolated hardware

- Challenged by the need to scale simulations to an high-performance computing (HPC) cluster

Then the HPE ANSYS Solution for CAE is the solution for you.

Leading the evolution

Engineered scalability

Over the years, ANSYS and Hewlett Packard Enterprise have worked to bring together solutions that optimize performance, accelerate the product development cycle, and increase speed to market.

From simple initial design studies to highly detailed optimization work, ANSYS software has been tuned to perform exceedingly well on the latest HPC systems. Pairing ANSYS with an HPC system ensures that as complexity and simulations grow, turnaround time remain low and results are available to impact engineering decisions.

By scaling your ANSYS simulation workloads from isolated workstations to an HPC cluster, the solution:

- Is designed with the right compute to support your ANSYS workloads today and as your business grows
- Reduces runtime and improves engineering productivity by supporting multiple complex simulations at a single time
- Increases utilization of resources
- Is easy to deploy, configure, and operate

Solution brief

40%

reduction in design cycle time with ANSYS software.²

4x

increase in the number of simulations when running ANSYS Fluent on the HPE Apollo 2000 System.³

90%

efficiency for parallel processing when the ANSYS Fluent solver scales up to 129,000 cores.⁴

\$44 USD

of profit is associated with \$1 of investment in HPC.⁵

¹ "ANSYS Unveils Release 17.0," ANSYS, 2016

² Eicher Tractors Case Study, ANSYS, February 2016

³ Test using geometric mean of ANSYS Fluent benchmarks, Hewlett Packard Enterprise, February 2017

⁴ "10x More Cores for CFD," ANSYS, 2016

⁵ "HPC Update at ISC16" IDC, June 2016

Our solution partners



Sign up for updates



The right technology

Instead of isolated, simplified, single-point simulations, today's design challenges require high-fidelity results that include the coupling between multiple physical phenomena. ANSYS delivers the tools required to enable these real-world multiphysics solutions, incorporating fluids, structures, thermal, and electromagnetic phenomena. Continual ANSYS research has led to advanced, more robust solutions for even the most complex problems. In fact, ANSYS can deliver up to 10x the improvement to product development productivity, insight, and performance.¹

Proven hardware

Each ANSYS application places different demands on a server's resources. Powered by the HPE Apollo 2000 System, product design organizations can successfully manage their ANSYS workloads, thanks to the Apollo 2000's flexible options.

The ability to mix and match servers in the same chassis and the Apollo 2000's unique drive mapping flexibility allow customers to create optimized configurations for their ANSYS applications. One or more

chassis can be custom-configured to act as affordable, modular, 2U building blocks for a specific implementation at scale—and easily accommodate future growth.

Expertly architected

ANSYS provides comprehensive, scalable, and adaptive software that drive the information-based product development process. Innovative and cost effective, the HPE Apollo 2000 System enhances development with a scalable and reliable HPC solution. Together, ANSYS and Hewlett Packard Enterprise help companies innovate and stay competitive, making product development less costly and more reliable.

Make smarter product design decisions, stay competitive, and scale your infrastructure for future growth. Contact your HPE sales representative or HPE channel partner to get started today.

Learn more at
hpe.com/info/ansys