Case Study
Nor-Tech's Engineering Maximizes AMD's CPUs/GPUs for CFD Software Client
Close collaboration between three companies was the key to success.

Their Challenge
The Chief Technology Officer of one of Nor-Tech's clients, a company that specializes in high fidelity CFD software, reached out to Nor-Tech with the goal of finding a reliable, reputable source for GPU servers that would accelerate the use of the client's codes. AMD has been very interested in this client and the power that AMD EPYC CPUs and AMD MI-series GPUs bring to the client's solvers. As a result, AMD was very involved in this project from the beginning and instrumental to its success.

Our Solution
Because Nor-Tech has both EPYC processors and MI-series GPUs on its demo cluster, the client had the opportunity to conduct initial testing and see the benefits for themselves before making a commitment. While they were impressed with the performance, the primary reason the client decided to go with AMD was AMD ROCm™, the first open-source software development platform for HPC/Hyperscale-class GPU computing.

The first Nor-Tech project was a small cluster commissioned by the client on behalf of one of its customers, a Fortune 100 manufacturer. The goal was to test the performance before ordering a much larger cluster. Subsequently, Nor-Tech began work on a similar project for the client and Stanford University.

For the client's test cluster, Nor-Tech's engineering team integrated a range of leading-edge hardware including AMD EPYC processors and AMD MI-series GPUs. Nor-Tech Senior HPC Account Executive Tom Morton said, "We assisted with procuring the AMD GPUs and configuring them to work with the client's software. Then we used ROCm to set up the cluster and get it up and operational. We made sure that everything ran smoothly on the initial setup and were able to get AMD involved when necessary."

Their Success
Nor-Tech delivered the client cluster first and then the Stanford cluster two months later. Because Nor-Tech, AMD and the client worked so well together, the projects were completed smoothly. "Everyone was a pleasure to work with," Tom said. "Because they have been happy with the clusters and support, they have been a great source of referrals. We are very grateful for this opportunity and look forward to the client's future success."

About Nor-Tech
Nor-Tech built its reputation on the industry's easiest-to-deploy cluster solutions and guaranteed no wait time support. The company designed and built the HPC cluster that enabled the first detection of a gravitational wave—a discovery destined to change history. In addition to HPC clusters, Nor-Tech's custom technology includes workstations, desktops, and servers for a range of applications including CAE, CFD, and FEA. Clients include some of the most respected organizations in the world. Nor-Tech engineers average 20+ years of experience and are responsible for significant high performance computing innovations. The company has been in business since 1998 and is headquartered in Burnsville, Minn. just outside of Minneapolis. To contact Nor-Tech call 952-808-1000/toll free: 877-808-1010 or visit http://www.nor-tech.com. Full release at: http://www.nor-tech.com/category/news/

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