MarketWatch

Remote HPC Cluster with Intel Xeon, NICE DCV and New Open Source Web Portal Developed by Nor-Tech

MINNEAPOLIS, Oct. 26, 2020 /PRNewswire via COMTEX/ Nor-Tech recently completed an HPC cluster for one of the world's leading materials manufacturers designed to facilitate remote work. The cluster features engineered hardware, Intel Xeon Processors, Nice DCV and an Open Source utility offered to enterprises exclusively through Nor-Tech.

The cluster resides in the client's datacenter, but that has been no impediment to getting work done during the COVID-19 shutdown. "I was still able to access it even while I was working at home," the client said. "Utilities that Nor-Tech recommended and integrated, such as NICE DCV and EnginFrame, made it easy to work remotely."

Nor-Tech had been working with this client for several years when they were approached by a senior engineer about this cluster project. The engineer and his colleagues conducted CFD simulations involving proprietary processes.

In an effort to make the client's budget go much further, Nor-Tech's Senior HPC Account Executive explained that they could quote the cluster with mostly open source software, instead of commercial software—which comes with hefty annual licensing fees.

Nor-Tech has a significant edge with open source: they are the only enterprise offering Open OnDemand to enterprise clients. This web portal, developed at the Ohio Supercomputer Center, allows even those without high performance computing experience or expertise to take advantage of open source capabilities and cost savings. A trial of Open OnDemand, NICE DCV and Intel Xeon processors is currently available on Nor-Tech's Demo Cluster.

Nor-Tech's account executive recommended a cluster with Intel Xeon Scalable Processors. The client also wanted the capacity to add significantly more nodes in the future. Building on the momentum of the existing 2nd Gen Intel Xeon Scalable processors (CLX), Intel's Refreshed 2nd Gen Intel Xeon Scalable processors (CLX-R) offer enhanced power and value for high performance, mainstream and entry level applications at a similar or lower price than CLX.

"We can do what we did before, only much faster and it has also opened up capacity for larger simulation models," the client said. "I have run my test problem interactively through the visualization node with excellent results. On a Windows workstation with 32 cores, the problem ran at about 40 seconds/iteration. On the Nor-Tech cluster it ran at 22 seconds/iteration with 32 cores. At 64, 128, and 256 cores it ran at 11.8, 6.5 and 3.5 seconds/iteration, respectively. I am now running additional comparisons on another model. With 32 cores it runs at 14.3 seconds/iteration on a windows workstation, compared to 9.4 seconds/iteration on the cluster."

Nor-Tech is on CRN's list of the top 40 Data Center Infrastructure Providers along with IBM, Oracle, Dell, and Supermicro and is also a member of Hyperion Research's prestigious HPC Technical Computing Advisory Panel. The company is a high performance computer builder for 2015 and 2017 Nobel Physics Award-contending/winning projects. Nor-Tech engineers average 20+ years of experience. This strong industry reputation and deep partner relationships also enable the company to be a leading supplier of cost-effective Lenovo desktops, laptops, tablets and Chromebooks to schools and enterprises. All of Nor-Tech's high performance technology is developed by Nor-Tech in Minnesota and supported by Nor-Tech around the world. The company is headquartered in Burnsville, Minn. just outside of Minneapolis. Nor-Tech holds the following contracts: Minnesota State IT, GSA, University of Wisconsin System, and NASA SEWP V. To contact Nor-Tech call 952-808-1000/toll free: 877-808-1010 or visit https://www.nor-tech.com.