www.nor-tech.com

Case Study

Seamless HPC Cluster Solution for International Client

"I'll be honest here. Some of the larger companies and brands out there are extremely hard to get in touch with. There was none of this nonsense with Nor-Tech. Initial contact was handled perfectly and everything was smooth sailing."
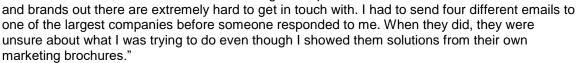NCMS Mechanical Engineering Division Manager H. Badr

Their Challenge

Riyadh, Saudi Arabia-based *National Company for Mechanical Systems* (NCMS) was established to bridge the gap between research and development and production. NCMS provides the knowledge and expertise in design and analysis, coupled with advanced prototyping and testing facilities, to enable their clients to bring ideas to market. NCMS provides clients with total technical and management support-- from product design and development to production systems.

After their primary cluster became non-functional, NCMS was referred to Nor-Tech by Dassault Systèmes. Manager of the NCMS Mechanical Engineering Division Mr. Badr explained, "We needed the cluster to run a finite element and Dassault Systèmes listed Nor-Tech as a solution partner for turnkey HPC solutions. I did my homework and learned the Nor-Tech has proven capabilities."

But Nor-Tech was not the first company Mr. Badr contacted. "I'll be honest here," he said. "Some of the larger companies and brands out there are extremely hard to get in touch with. I had to send four different emails to one of the largest companies before someone responded to me. When they did, they were unsure about what I was trying to do even though I showed them solutions from their own marketing brochures."

He continued, "My request would get passed from person to person and each time I would have to explain everything over and over again. Finally they wanted to meet, not specifically to discuss this issue, but to see what they could do for our company in general. In other words, they were not interested in creating a turnkey HPC cluster for us if it was not attached to a larger project. There was none of this nonsense with Nor-Tech. Initial contact was handled perfectly and everything was smooth sailing."

Mr. Badr contacted Nor-Tech Senior HPC Account Manager Bob Dreis. "They wanted a turnkey solution," Bob said. "They didn't want to have to bother with configuring and deploying it and this made them an excellent fit for Nor-Tech."

Our Solution

NCMS bought a new HPC cluster that was a generational upgrade with significantly faster performance. Nor-Tech integrated the NCMS finite element solver and Bright Cluster Management Suite; configured Altair's PBS Pro for job scheduling; and set up the users.

Nor-Tech used its international network to source solution components from manufacturers that offered international support. "We made sure that the U.S. warranties carried through," Bob said. "We looked for software partners that have international coverage. For example, Altair is supporting them out of India and Bright has support capabilities around the world. It's good to get the sale, but it is more important that the client is happy long term."

NCMS sent one of their technology experts to Nor-Tech's Minnesota headquarters to work with engineers face-to-face. "The representative was very, very happy," Bob said. "He reported back that we were very easy to work with and very forthcoming with the knowledge transfer."

The ability to test out everything before shipment was also important to NCMS. "Being able to remotely run progressively larger jobs while the machine was still at Nor-Tech was a key factor here," Mr. Badr said. "Bob and his team were very detail-oriented and seemed genuinely interested in making sure we were aware of all the options and that we got the best solution for our needs. Nor-Tech was with us every step of the way."

Their Success

Mr. Badr said that the cluster is performing well and NCMS is experiencing significant savings on both time and manpower. He summarized his experience with Nor-Tech thus far by articulating the following five reasons he *absolutely* recommends Nor-Tech:

1. We were able to test the system remotely which gave us adequate opportunity to make sure everything was working as it should before shipment.
2. Nor-Tech met with our IT employee in person and made sure they had all the tools to manage the system so that there were no surprises.
3. Nor-Tech had a lot of resources for sourcing hardware and they did not push their own hardware solutions on us. They made sure everything could be locally supported.
4. If needed, they work with third parties seamlessly to make sure the solution meets the client's requirements.
5. With Nor-Tech, there was a very quick turnaround on all communications.

"Mr. Badr and the rest of the NCMS team were a pleasure to work with," Bob said. "This is a very innovative company with a bright future ahead of them. We look forward to supporting their growth."

So what does Nor-Tech mean by "Easy to Deploy"?

- Each cluster is fully configured and ready to deploy when it leaves Nor-Tech's facility.
- All clusters are set to the client's IP and DNS scheme.
- Every client is asked to log into their new cluster just after burn-in completion to verify operation and setup users.
- Nor-Tech assists clients with job script creation.
- Nor-Tech provides a complete set of references including user manuals, a network topology guide, and a Visio drawing.
- Nor-Tech provides a customized bare metal cluster recovery disk.
- Nor-Tech labels all cables with ID tags on both ends.
- All clusters all ship with Storage Guard to alert clients before their clusters run out of space; and ambient temperature monitoring and protection.
- *We guarantee no wait time support.*

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/

Contact us

Email: info@nor-tech.com
Call 952-808-1000; toll free: 877-808-1010.