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NOR-TECH

People Friendly Technology

Case Study

Oil Services Company Opts for On Prem Over Cloud

"We figured we would only need to own the on-prem solution for 1-1/2 years before the cost of the cloud solution surpassed the cost of the cluster."

Engineering Manager for Large Oil Services Company

Their Challenge

Nor-Tech had originally built a cluster for this Oil Services Company in 2019—they were so happy with it that they referred Nor-Tech to another department that also needed a sizeable cluster

This department needed a new HPC solution after their old HP[1] cluster failed. Much of the debate was whether to go with another on-prem cluster or migrate to the cloud. The ultimate decision to go with a cluster boiled down to long-term cost and also ease of use.

Nor-Tech Senior HPC Account Executive Bob Dreis explained, "They thought about going with cloud—in fact company executives were rather insistent on cloud, but their Engineering Manager realized on prem would be less expensive than cloud."

However, to get approval from management they needed to cost justify why on prem would be cheaper.

The client's Engineering Manager explained, "We already had an on-prem solution we bought a few years ago that needed to be replaced. There were some issues with the licensing fees that would have made it more expensive for us to move to cloud computing. We would have had to pay the maintenance fee and a usage fee—it was crazy. Things started to add up. So even the software portion was a lot. Then on top of that we would have to pay the cloud fee for hosting."

Ultimately, the Engineering Manager put together a comprehensive cost analysis showing that on prem would be about $10,000 cheaper per project.

"We figured we would only need to own the on-prem solution for 1-1/2 years before the cost of the cloud solution surpassed the cost of the cluster," the Engineering Manager said. "Some people claim that cloud is better for the end user, but really, it's just better for the organization. For the end user, on prem is better for a number of reasons."

Our Solution

The original cluster had been running custom software that the client wanted to integrate into the new cluster. To do that, would require the level of engineering expertise that few HPC cluster builders outside of Nor-Tech have.

The biggest challenge was getting this custom software to operate on newer versions of Linux and the cluster hardware.

"Nor-Tech worked with the software company to recompile the software to work on a current platform," Bob explained. "Then we configured and integrated a cluster with 224 Intel Xeon cores and this customized software version."

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[1] Hewlitt Packard

Their Success

After the cluster shipped. Nor-Tech conducted a full onsite deployment and had the cluster up and running in less than a day.

"Nor-Tech is absolutely awesome," the Engineering Manager said. "We purchased our previous cluster from HPE[2] and we were very disappointed with the support. There was a lot of back and forth with HPE and often things didn't get resolved—at times, they basically told us to handle issues ourselves. With Nor-Tech, if I need help from Bob or anyone else someone picks up the phone right away. Nor-Tech's engineers were extremely responsive and smart. I would give them the highest accolades."

The Engineering Manager added that they did get a quote from HPE for the new cluster; it was more than 2-1/2 times higher than Nor-Tech's quote.

"I would recommend Nor-Tech because of everything I just described, but it's more than that," the Engineering Manager said. "It's the cost-effectiveness too. I like that they are not tied to any one manufacturer. They will build you the best system for your needs. They were also proactive with vendors to ensure we would get the best configuration—without us even asking. Nor-Tech was highly recommended by another department here. Now I know why."

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.

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[2] Hewlitt Packard Enterprise