



Case Study

HPC Cluster for the U.S. Navy

"They didn't try to cheap out on anything. For example, the software they used is only common in higher-end clusters, but they included that in the price."

Dan Gore, subcontractor for the U.S. Navy

Their Challenge

When Dan Gore, a subcontractor for the U.S. Navy was looking for an experienced computer cluster builder that uses quality parts, pays attention to detail and offers a fair price, he turned to Ace Computers. "This was our first cluster from Ace Computers, but I have worked with clusters for going on 15 years," he said. "We put out an open bid for a cluster, but we didn't include a lot of detail. We rejected a couple of bids and their bid came in with the best detail at the best price."

Ace Computers' Vice President of Technology Solutions, Marc Fertik, and Director of Technology, Dan Arendt, worked closely with Gore from the beginning. "Dan Gore has a lot of experience with clusters and he knew what he wanted," Arendt said. "He had, what other companies would consider, high expectations regarding performance, compatibility, expandability, parts quality and price. But that's the way we build custom technology for all of our clients."



Dan Gore & Dan Arendt

Our Solution

Ace Computers ended up building a complete cluster featuring 320 cores/640GB memory (compute nodes) with an FDR Infiniband topology that can accommodate future growth for Gore and ultimately the U.S. Navy. "I was very happy for many reasons, but one was definitely the quality of the equipment," Gore said. "For example, they used Supermicro motherboards and a Mellanox InfiniBand communications backbone."

Gore continued, "They didn't try to cheap out on anything. The rack they spec'd provided better cooling and easier placement. The wiring was perfect down to the most minute detail and that's just the hardware. The software (Bright clustering technology) is very well designed to deploy and integrate into an HPC cluster. It is a common piece of software for higher end clusters, but they included that in the price."

The fact that Gore has so much experience purchasing clusters streamlined the entire process. Arendt explained, "They were realistic in their expectations. They didn't make us feel rushed or burdened. Everything went smoothly because the client was both accessible and knowledgeable."

Their Success

"They spec'd out the equipment we needed very well along with the ability to build on and add to the cluster," Gore said. "Down the road, we will be able to quadruple the power with what we already have."

He added that he has ordered custom technology many times, but not always with the same result. "In the past we've had issues with companies going out of business and others that didn't do a very good job of integrating the technology," he said. "When I saw the quality of the components and level of expertise that Ace brought in, I was very happy. Everything was delivered a bit ahead of schedule and the two guys that came to set it up were really on top of it. We planned to expand the system and the way they installed it will be very easy for us to expand."

Gore said that he wouldn't hesitate to recommend Ace Computers for many reasons, including the quality of the components. "That was the biggest thing for me: having good quality components that are not specifically proprietary," he said. "The components they use are very easy to integrate. I can always specify what I need. With other companies, when they obsolete something you are stuck. With Ace, I know the parts will be available in the future. They have my wholehearted recommendation."

About Ace Computers

Multiple award-winning Ace Computers is a Woman-Owned Small Business custom technology systems builder and reseller for the public sector as well as the commercial sector. It has been an industry leader since 1983. In addition to some of the finest academic institutions in the U.S., long-term clients include the U.S. Department of Energy and the U.S. Department of Defense. Ace Computers builds custom technology with the same components that top manufacturers use without the premium price. Its principal, recognized industry expert John Samborski, is an alumnus of Intel's prestigious board of advisors. In addition to its Greater Chicago headquarters, Ace Computers has locations in New Jersey, Colorado, and Pennsylvania. To contact Ace Computers, call 1-877-223-2667 or 1-847-952-6900 or visit www.acecomputers.com.

Ace Computers on LinkedIn: <http://www.linkedin.com/company/98135?trk=tyah>

Ace Computers on Facebook: <http://www.facebook.com/#!/AceComp>