

Challenge

- To find a scaleable solution to support a growing 19 node Linux Red Hat GFS cluster



Solution

- An IP SAN using SANRAD V-Switch 2000 and Nexsan SATAboy

Benefits

- Easily share storage and data among all the nodes in the cluster.
- iSCSI connectivity is very cost effective and simple to use with a large compute cluster.
- Data is accessible even if an individual cluster node goes offline.
- High reliability ensures continuous data access to the compute cluster.



"I support a large 19 node Linux Red Hat GFS compute cluster used for biotechnology research. NFS didn't have the scalability and performance I needed to support a large compute farm. The V-Switch made it easy to share storage among all the nodes in my cluster and provided me with the scalability and performance needed to support this demanding environment."

Shawn Houston
Technical Leader, Biotechnology Computing Research,
University of Alaska, Fairbanks

SANRAD helps University of Alaska, Fairbanks build a large Compute Cluster

Alaskans take great pride in their individuality, and Alaska's flagship university campus is no different. UAF's 9,380 students come from Alaska, every other state, and 45 foreign countries. The Alaska Agricultural College and School of Mines opened its doors in 1922. The school grew quickly, and in 1935 became the University of Alaska. By the time Alaska became a state in 1959, students could earn Ph.D.s at the university. UAF remains the only campus in the state that awards doctoral degrees and it holds the distinction of being one of the few Land, Sea and Space Grant universities in the country.

The Biotechnology Computing Research Group provides programming and High Performance Computing (HPC) support to the Life Sciences Community, and encourages interdisciplinary education within Biology, Computer Science, Mathematics and Engineering.

SANRAD V-Switch provides storage for a 19 node Compute Cluster for the research group. The INBRE Bioinformatics initiative provides a variety of services to faculty, staff, and students. Many popular bioinformatics and phylogenetics software packages with data are available on compute clusters. INBRE also offers consultation and support for developing and optimizing software to meet the needs of different research projects.

Topology at Biotechnology Computing Research Group

Red-Hat Linux GFS Compute Cluster

