

Nor-Tech helps SAFL solve the never-ending storage problem

The Challenge

The University of Minnesota's Saint Anthony Falls Laboratory is the headquarters and administrative home of the National Science Foundation-sponsored National Center for Earth-surface Dynamics, as well as the U.S Dept. of Energy-funded Eolos Wind Energy Research Consortium. Their research involves combining cutting-edge experimentation, both in the lab and in the field, with advanced computational tools and theory. The research done by SAFL is responsible for the development of innovative methodologies for solving real-world fluid-flow challenges.

SAFL's primary areas of concentration are centered on hydropower and wind energy research. The laboratory is at the center of a national effort to advance marine and hydrokinetic devices as a practical and sustainable solution for harnessing waterpower, thanks in part to their state-of-the-art computational fluid dynamics tools.

SAFL is also working closely with academic institutions, government labs, and commercial industries to streamline the process of wind power generation, cutting down on wake turbulence and increasing efficiency, to make wind a more viable energy source. This research uses sophisticated computational tools to simulate real-world wind farm configurations.

SAFL's research requires and generates an enormous volume of data, which needs to be organized and stored for current use, and archived and protected for future use.

The Solution

Nor-Tech provided SAFL with a Voystor storage server consisting of 3 head nodes, 4 JBOD nodes and a development node, totaling more than 500TB of storage. The Voystor 4500ds features drives in both the front and rear of chassis and can be connected to similar JBODs

The Voystor 4500ds was designed to integrate seamlessly with SAFL's existing network infrastructure, delivering advanced functionality and performance, while offering maximum availability and data integrity. With high-volume data transfer speeds, large projects can be backed up or unarchived without slowing productivity.

The hot-swap capability allows SAFL researchers to service their data systems without interruption, providing outstanding data center uptime.

The scalable solution with its unprecedented levels of performance-per-watt and data integrity, is an ideal solution for SAFL's demanding applications and the abundant amount of storage will provide them with the space they need for current and future data storage.