

X-ISS Helps University of Wisconsin Focus on Supporting Researchers

" ... [X-ISS] has allowed us to focus our attention where it was most needed."

- David Crass,
Director of
Research
Computing,
University
of Wisconsin

Business Need

At the University of Wisconsin, the Engineering Department did not have the time to hire and train a person to administer the complex HPC cluster required for research. Only a small handful of candidates who applied for the position were qualified to administer the system.



Solution

The University of Wisconsin contacted X-ISS to do software upgrades and installations along with system management.

Benefits

- Freedom to focus on research instead of HPC administration
- On-site installation and set-up
- Turnkey outsource system management service
- Secure remote system monitoring
- Proactive reporting process
- X-ISS professionals available 24/7

Lack of trained HPC administrators delays research

In the world of high performance computing (HPC), the gap is growing between organizations utilizing cluster computing systems and the supply of experienced and qualified system administrators. The HPC systems of today are extremely powerful and flexible, but are also complex to install, manage and maintain.

Using cluster computing, researchers across a range of scientific fields, from astronomy to genomics, can develop model experiments using programs created to utilize large amounts of data for designing high-resolution displays, intricate analysis and detailed simulations. Frequently, the scientists working with HPC clusters for research need to also administer the system. But when research scientists have to become computer scientists, time is lost and used inefficiently, productivity drops and the level of frustration rises as more time is spent managing the HPC.

Customer Profile



Industry:
Engineering
Department

Country:
United States

Students:
42,099

**Faculty and
Academic Staff:**
16,000

Website:
www4.uwm.edu

“The major architectural trends in high performance computing—from single-system-image servers to distributed clusters, and from single-core to multi-core processors—have combined to make effective system administration a much different, much more complicated challenge than it used to be,” said Addison Snell, CEO of Intersect360 Research, a consulting firm focused on the HPC industry. “To achieve optimal performance and utilization can require significant expertise in a wide array of middleware options. This has led to a shortage of qualified system administration talent for HPC markets.”

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X-ISS offers a solution to HPC management

X-ISS is an answer to this shortage of experienced HPC talent. With its outsourcing management service ManagedHPC, X-ISS gives its clients the freedom to focus on their research, while leaving the HPC system in the hands of competent administrators. Using a unique methodology, customers incorporating ManagedHPC receive on-site installation and setup, turnkey outsource system management service, secure remote system monitoring, a proactive reporting process and the professional X-ISS team available any time of day or night.

At the University of Wisconsin, scientific research in the fields of bioengineering requires the most sophisticated software and computer programs. Whether its biomechanics, cell or tissue engineering, or biomedical research, the university didn't have the time to hire and train a person to administer the complex HPC cluster required for research. Additionally, only a small handful of the candidates that inquired about the position were even qualified. Instead, the university contacted X-ISS to do software upgrades and installations along with system management.

“As part of this significant investment into the Engineering Department at the University of Wisconsin, we were able to procure a 142-node cluster computer from Dell and funding for a cluster system administrator,” said David Crass, Director of Research Computing at the University of Wisconsin. “X-ISS has been able to handle getting the system up and running, software installations, and proactively handle technical issues so we could focus on working with the Engineering staff on specific code needs and department usage of this shared resource. It has allowed us to focus our attention where it was most needed.”

Progressive organizations will outsource system management

With an increase in HPC use, demand for X-ISS services will also increase. In addition to ManagedHPC, X-ISS has DecisionHPC, a Web-based monitoring and analytics software package to help customers maximize productivity, assist with future computing resource needs and align HPC resources with organizational goals.

With a focus on responsiveness, expertise and professionalism, X-ISS helps organizations implement cost savings solutions; increase efficiency to keep the research staff focused on operations; increase utilization by maximizing cluster capacity; increase top-line revenue to perform analysis in a shorter amount of time, leading to faster business decisions; and obtain peace of mind by knowing X-ISS is backed by more than 10 years of experience and success.