Wistar Institute Centralizes Storage, Ensures Data Safety, Increases Flexibility, and Gains $670,000 in Benefits with SGI® StorHouse® Software

Key Facts

Organization:
The Wistar Institute

Location:
Philadelphia, PA, US

Application:
Biomedical Research

The Wistar Institute is the nation's first independent institution devoted to medical research and training. Biomedical research generates enormous amounts of data, and key to researchers' success is their ability to access that data when they need it, and to archive it for future use. Initially, laboratories at Wistar each had their separate storage infrastructures, often using different technologies, which functioned as separate silos. Wistar was looking for a new storage-and-archiving solution that would centralize storage and archiving, ensure data integrity, reduce future costs, be flexible, and scale easily.

Wistar researched many different solutions and providers, and after in-depth comparisons, chose StorHouse software as the best solution. Wistar now has a high-performing, customizable solution that has centralized storage and archiving, ensures data integrity, can easily scale, and allows laboratories to continue using whatever computing technology they prefer. Wistar will also reap significant financial benefits from the use of StorHouse. As a result of the deployment, it will gain a projected, cumulative three-year net benefit of $671,294, driven by avoiding future hardware costs, and in energy savings. The project will have an ROI of 239 percent, and a payback period of 16 months.

"FileTek's StorHouse has made it easy for us to centralize storage, ensure data integrity, and gives us far more flexibility. With it, we're better able to meet the needs of the researchers at the Wistar Institute."

Christopher Wawak,
Research Systems Administrator at the Wistar Institute Center for Systems and Computational Biology

Benefits

Objective	Benefits Achieved
Centralize storage	With StorHouse, labs no longer store data in separate silos using different technologies. All data is centrally managed and archived.
Ensure data integrity	Data is more secure because it is archived from a central location. Data audits can be more easily handled from a central location rather than in multiple locations throughout the facility.
Reduce costs	If Wistar were to handle storage by creating a hardware-based storage mirror — the traditional approach for replication and failover— instead of using StorHouse, it would have to spend an additional, estimated $937,500 over three years.

The Challenge: Centralize Storage, Ensure Data Integrity, Reduce Costs, and Improve Flexibility

The Wistar Institute is the nation's first independent institution devoted to medical research and training. Its research has yielded new therapies, vaccines, and insights that have profoundly influenced the progress of both science and medicine. Collaboration is one of Wistar's traditional strengths, and the institute takes a team science approach to translating basic scientific discoveries into practical therapies.

Biomedical research generates enormous amounts of data, and key to researchers' success is their ability to access that data when they need it, and to archive it for future use. Laboratories at Wistar each had their separate storage

infrastructures, often using different technologies, which functioned as separate silos. Wistar was looking for a storage-and-archiving solution that would:

- Centralize storage and archiving. Separate storage silos were difficult to manage. Frequently they were overseen by a graduate student taking it on as an additional task rather than by a professional system administrator. Wistar believed that centralizing storage would prove to be more effective than having islands of storage.
- Ensure data integrity. Data could be lost, for example if hard disks crashed. Wistar wanted to make sure that all data would be properly archived and would always be able to be retrieved when necessary.
- Reduce future costs. The balkanized approach to storage meant that storage and backup could not be handled in the most cost-effective manner as data needs increased. Wistar wanted to find a solution that would hold down future costs.
- Be flexible and scale easily. Wistar wanted to allow its researchers to continue using their existing computing technology, but still be able to use the centralized storage system. Wistar also wanted a storage solution that was flexible enough to change when the institute's needs changed, and that could easily scale as researchers' data needs grew.

Wistar Chooses StorHouse

Wistar researched many different solutions and providers, and after in-depth comparisons, chose StorHouse as the best solution. Christopher Wawak, research systems administrator at The Wistar Institute Center for Systems and Computational Biology, was in charge of the project to consolidate storage. He remembers, "During our research into what solution to choose, we kept coming back time and time again to StorHouse. One of the things that really excited us was that it is technology-agnostic— we can use whatever computers and protocols we wanted to access it, whatever backend storage we wanted, and whatever front-end storage we wanted. We could tailor it to our own needs, and change it as our needs evolve. The flexibility is what really sold us on it."

In addition, StorHouse prevents failures through automatic content validation and repair, and streamlines backups. It is future-proof and has the scalability to accommodate future growth of data, with no technology obsolescence. It offers data assurance and access at the lowest storage cost. The system offers easy migration to newer and more advanced technologies as they become available, with no performance degradation or system downtime, to ensure future accessibility of current data.

The Bottom Line for Wistar

Wistar now has a high-performing, customizable solution that has centralized storage and archiving, ensures data integrity, can easily scale, and allows laboratories to continue using whatever computing technology they prefer. Wistar will also reap significant financial benefits from the use of StorHouse. As a result of the deployment, it will gain a projected, cumulative three-year net benefit of $671,294, driven by avoiding future hardware costs, and in energy savings. The project will have an ROI of 239 percent, and a payback period of 16 months.

"StorHouse has helped with data safety and integrity," Wawak says. Previously, groups stored data in many different ways, including on individual USB hard drives, which meant that the data was not well-protected and secure.

"By centralizing storage, we now make sure that the data is backed up and secure," he says. "All the data is owned by the institute and we are responsible for it, and we can now ensure that it's safe. It won't be lost if someone's hard disk crashes, or someone walks away with a USB drive. We have increased the security of our data by centralizing it."

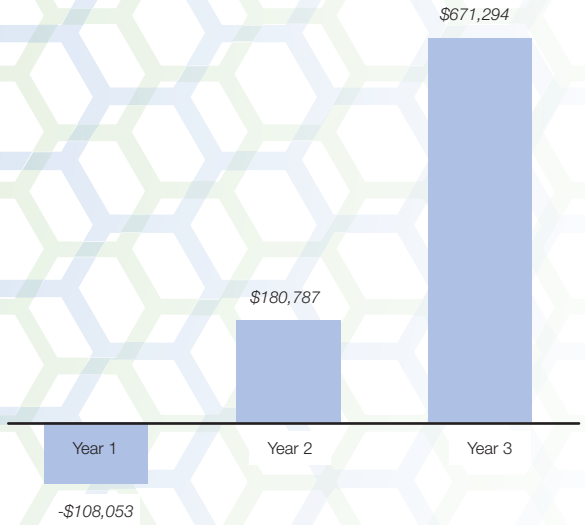
StorHouse also helps in situations where Wistar is audited by granting agencies and organizations to find out where data is located and how it is being handled. Instead of having to get the information from each individual lab, staff can easily find out through StorHouse where data is located, and can ensure that it is safe.

StorHouse also gives Wistar a great deal of flexibility in how it configures storage, extremely important for the institute, given the fast pace of change in scientific research.

"In science you can't project very well your future storage needs," Wawak explains. "A new lab may suddenly receive a large grant, and they very quickly need to have storage, in as soon as a week. StorHouse lets us be as flexible as we want when configuring central storage and archiving, and to do it very quickly."

Without StorHouse, Wawak says, it would not be possible to quickly provision centralized storage and backup.

"Provisioning is extremely simple," he explains. "You don't need to think about what's active or inactive, you can just buy more disks when you need them and manage it that way. It's changed the way we plan our storage and is much more flexible. We can easily provision individual buckets of storage for individual users and projects."



Cumulative Net Benefit

In addition, because of StorHouse's simplicity, staff has been freed to concentrate on higher-level tasks than managing storage and archives.

"It allows us to concentrate on providing more services to the labs than just playing system administrator," Wawak says. "It frees our staff to do more important work."

Scientists also benefit, he says, because they can concentrate on research rather than on the details of data storage.

"They don't have to worry about storage any more because they have someone else managing it for them," he says. "That kind of efficiency is a big win for them."

StorHouse will also save Wistar a significant amount of money. If Wistar were to handle storage by creating a hardware-based storage mirror — the traditional approach for replication and failover — instead of using StorHouse, it would have to spend an additional, estimated $937,500 over three years. In addition, StorHouse allows Wistar to avoid using many disk arrays, resulting in an estimated $14,793 in savings over three years.

Wawak lauds the company not only for the StorHouse solution, but also for the level of support the company provides.

"Their support is very good," he says. "Whenever we want to do something new and need advice, the company has provided all the help we need."

The following chart provides a three-year analysis.

Project Summary					
ROI	239%				
Payback Period (in months)	16				
Cumulative Net Value	$671,294				
Net Present Value	$493,279				
Benefits	Start Up	Year 1	Year 2	Year 3	Total
Cost Savings		$104,167	$312,500	$520,833	$937,500
Energy Savings		$2,113	$6,340	$6,340	$14,793
Total Benefits		$106,280	$318,840	$527,173	$952,293
Financial Analysis		Year 1	Year 2	Year 3	Total
Net Value	-$173,000	$64,947	$288,840	$490,507	$862,500
Cumulative Net Value	-$173,000	-$108,053	$180,787	$671,294	$10,500

Return on Investment *(ROI) is the percentage return expected over a specified period of time. ROI is the total benefit divided by the total costs. This ROI metric is good for assessing the multiplier provided by the benefits relative to the total investment and costs.*

Net Present Value *(NPV) represents the cumulative present value of the expected return of a project over a specified period of time minus the initial costs of the project. This figure provides visibility on the actual value of a project, taking into consideration the time value of money—the ongoing benefit of a project in today's money. NPV tells you the magnitude of the project and if the project generates a profit.*

Payback Period *(or breakeven) is the timeframe it takes for the project to yield a positive cumulative cash flow. Payback period is a key measurement of risk but does not take into account cash flows after the payback period.*

ROI, NPV *and* ***Payback*** *should be used in conjunction to understand the rate, size and timing of the return.*

Net Value *(or Net Benefit) is the benefit delivered to the organization for the investment made in the project. Net Value is calculated by taking the total benefit minus the project costs.*

"FileTek has been an excellent partner. They're always available when we need help or advice."

Christopher Wawak,
Research Systems Administrator at the Wistar Institute Center for Systems and Computational Biology

About the Wistar Institute

The Wistar Institute is the nation's first independent institution devoted to medical research and training. Founded in 1892, The Wistar Institute has evolved from its beginnings as an anatomical teaching museum to its present-day status as an international leader in basic biomedical research. In 1972, The Wistar Institute was designated a National Cancer Institute Cancer Center in basic research — a distinction it holds to this day. Wistar discoveries have led to the development of vaccines for rabies, rubella, and rotavirus, the identification of genes associated with breast, lung, and prostate cancer, and the development of monoclonal antibodies and other significant research technologies and tools.

About SGI

SGI, the trusted leader in technical computing, is focused on helping customers solve their most demanding business and technology challenges. For more information, please visit www.sgi.com. On October 1, 2013, SGI acquired the assets and some employees of FileTek, Inc., including all the rights to StorHouse software.

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