



High Performance Storage System

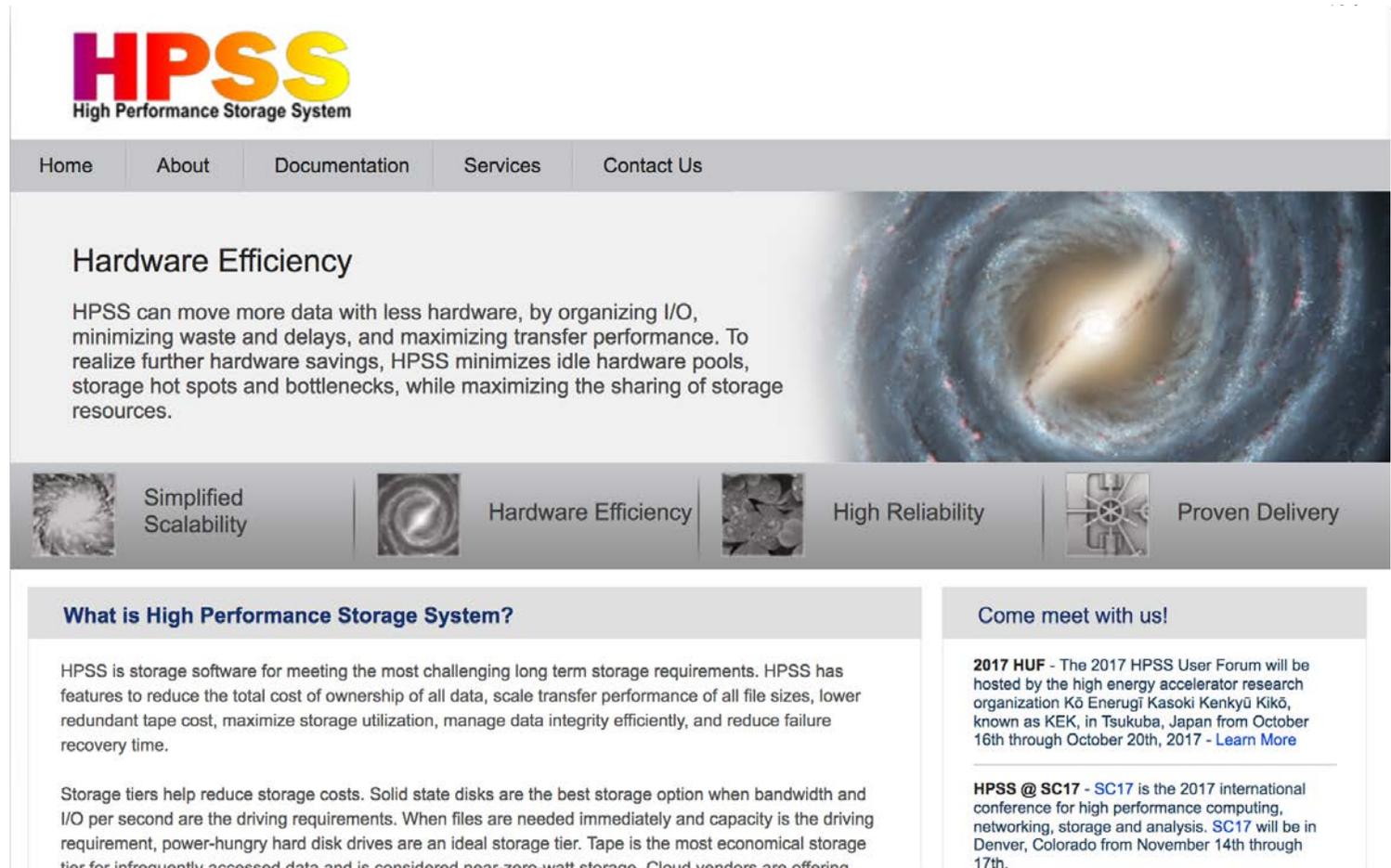
HPSS web site

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<http://www.hpss-collaboration.org>

We are refreshing our content and our messaging ...



The screenshot shows the HPSS website homepage. At the top left is the HPSS logo (High Performance Storage System). A navigation bar contains links for Home, About, Documentation, Services, and Contact Us. The main content area features a large image of a galaxy and a section titled 'Hardware Efficiency' with a paragraph of text. Below this is a row of four icons with labels: Simplified Scalability, Hardware Efficiency, High Reliability, and Proven Delivery. At the bottom, there are two columns of text: 'What is High Performance Storage System?' and 'Come meet with us!'.

HPSS

High Performance Storage System

Home About Documentation Services Contact Us

Hardware Efficiency

HPSS can move more data with less hardware, by organizing I/O, minimizing waste and delays, and maximizing transfer performance. To realize further hardware savings, HPSS minimizes idle hardware pools, storage hot spots and bottlenecks, while maximizing the sharing of storage resources.

Simplified Scalability Hardware Efficiency High Reliability Proven Delivery

What is High Performance Storage System?

HPSS is storage software for meeting the most challenging long term storage requirements. HPSS has features to reduce the total cost of ownership of all data, scale transfer performance of all file sizes, lower redundant tape cost, maximize storage utilization, manage data integrity efficiently, and reduce failure recovery time.

Storage tiers help reduce storage costs. Solid state disks are the best storage option when bandwidth and I/O per second are the driving requirements. When files are needed immediately and capacity is the driving requirement, power-hungry hard disk drives are an ideal storage tier. Tape is the most economical storage tier for infrequently accessed data and is considered near-zero-watt storage. Cloud vendors are offering

Come meet with us!

2017 HUF - The 2017 HPSS User Forum will be hosted by the high energy accelerator research organization Kō Enerugi Kasoki Kenkyū Kikō, known as KEK, in Tsukuba, Japan from October 16th through October 20th, 2017 - [Learn More](#)

HPSS @ SC17 - SC17 is the 2017 international conference for high performance computing, networking, storage and analysis. SC17 will be in Denver, Colorado from November 14th through 17th.



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But, I'm want to add customer references



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An example of what our vendor partner is doing...



The screenshot shows the Spectra Logic website header with the logo and navigation menu (PRODUCTS, SOLUTIONS, SUPPORT, COMPANY, SHOP, CONTACT). Below the header is a large banner with a blue background showing server racks. The banner contains a testimonial from NCSA: "NCSA designed Blue Waters to be one of the largest, most powerful supercomputing ecosystems in the world. The Spectra Logic TFinity met our rigorous requirements." attributed to Bill Kramer, Deputy Director of the Blue Waters Project. The NCSA logo is displayed on the left, and a red "Learn More >" button is on the right. A navigation bar with a right arrow and seven circles is at the bottom of the banner.

<https://www.spectralogic.com/>

Plus, when YOU publish, we want to point to your work!



CHALLENGE:
Oak Ridge National Laboratory is a premier source of computational science research and home to the United States' most powerful supercomputer for open science, Titan. Every month the leadership-class machine generates almost 1 PB of archive data, which must be managed and stored for easy and efficient file recall beyond the timeframe of the normal purge policy of the centerwide file system. To account for continued data growth, the laboratory needed new technology that would offer data redundancy and integrity for its scientific community of more than 1,200 users worldwide.

SOLUTION:
A file-based active archive featuring:

- HPSS software
- Six enterprise-class tape libraries with the capacity

CASE STUDY: ORNL
Oak Ridge National Laboratory

ORNL Enhances Data Integrity and Accessibility with Active Archive Solutions

Oak Ridge National Laboratory (ORNL), managed by UT-Battelle, LLC, is currently the largest US Department of Energy (DOE) science and energy laboratory, conducting basic and applied research to solve energy and security problems. Since its establishment in 1943, ORNL has grown to employ more than 4,500 staff members, including scientists and engineers in more than 100 disciplines. ORNL's \$1.5 billion budget enables the laboratory to support DOE's national missions of discovery, clean energy, and security through leadership in four major areas of science and technology: neutrons, computing, materials, and nuclear.

A majority of ORNL's research in these categories is published in open literature, and many of its facilities are open to researchers from universities, other national laboratories, and industry.

ORNL's Titan Supercomputer
ORNL is home to the United States' most powerful supercomputer for open science, Titan. Titan is capable of 27 petaflops and can handle quadrillions of calculations simultaneously for scientific simulations. Located at the Oak Ridge Leadership Computing Facility (OLCF), a DOE Office of Science User Facility at ORNL, the system provides the ability to simulate increasingly complex and realistic models and reduce time to solution.

<http://activearchive.com/sites/default/files/08-AA%20Case%20Study%20Oak%20Ridge%20National%20Lab-V3-150.pdf>

Please, please, please call us out!



CHALLENGE:

A global scientific community comprising about 5,000 users accessing massive and growing volumes of data required a storage infrastructure optimized for active archive usage.

SOLUTION:

Tape-based active archive using four automated tape libraries with pass-through capabilities – 128 tape drives, 35 of which are fast-access devices while 93 are high-capacity devices.

RESULTS/BENEFITS:

- 2009 internal study showed 99.9991 percent reliability rate
- Maintained low cost per GB with tape
- Ability to scale to support exponential growth, without corresponding budget increase
- Achieved data transfer rates

CASE STUDY

National Energy Research Scientific Computing Center

NERSC Exceeds Reliability Standards With Tape-Based Active Archive

Research Facility Accelerates Access to Data while Supporting Exponential Growth

Founded in 1974, the National Energy Research Scientific Computing Center (NERSC) is the primary scientific computing facility for the Office of Science in the U.S. Department of Energy. NERSC is located at Lawrence Berkeley National Laboratory's Oakland Scientific Facility in Oakland, California and is mandated with providing computational resources and expertise for scientific research to about 5,000 scientists at national laboratories and universities across the United States, as well as their international collaborators. A division of Lawrence Berke-

Group Lead at NERSC. "At any given moment, there are about 35 people logged into the archive system, including users from as far away as Europe or Asia, to researchers at various universities across the United States. We support a global distribution of users in every sense."

Delivering and Managing Increasing Data

Data growth typically hovers between 50 to 70 percent each year. The NERSC archive takes in approximately 50 TB of data each and every day – roughly the equivalent of its annual data intake a decade ago. With an indefinite retention period on the archive, NERSC's storage capacity and reliability requirements

<http://www.activearchive.com/common/pdf/nersc.pdf>



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Thank you!



PLEASE HELP!

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