



Solution Brief

NetApp E-Series Storage with Lustre from ADS

Gain a competitive edge with a best-in-class HPC solution that meets your specific needs

Key Benefits

Keep Pace with Your Extreme Workloads

- Quickly process millions of files.
- Increase performance and availability with NetApp® E-Series storage that delivers up to:
 - 44GBps throughput
 - 99.9999% reliability

Maximize Cost Efficiency

- Avoid overpurchasing systems and components with a custom solution that meets your specific needs.
- Reduce software and licensing costs with an open-source parallel file system.
- Lower operating costs with high-density drives and price/performance-optimized storage building blocks.

Future-Proof Your Investment

- Seamlessly scale performance and capacity as needed.

Gain a Trusted Advisor

- Join forces with a long-term partner who is focused on your success.

The Challenge

To get the most from data generated by technologies such as artificial intelligence, Internet of Things, and 3-D images, you need a high-performance computing (HPC) infrastructure that can quickly process millions of files, enabling you to turn insight into innovation. With seemingly endless choices in technologies, it's a challenge to know how to build an HPC solution that fits your budget and works seamlessly together, while delivering cost benefits and operational efficiencies.

The Solution

When you partner with Applied Data Systems (ADS), you get an HPC solution that meets your exact business needs. With years of experience under the experts at ADS take the time to understand your technical and financial objectives to help drive your success. Using only best-of-breed compute, networking, and storage components, they will design, build, deploy, and support a balanced and optimized HPC solution that meets your needs, fits your budget, and works seamlessly.

One of those solutions includes NetApp E-Series storage with the Lustre parallel file system. This proven, integrated solution delivers industry-leading performance, nonstop availability, and extreme scalability—all in an easy-to-manage, cost-optimized building-block architecture that is tested and validated for your environment.

Keep Pace with Your Extreme Workloads

Even the fastest supercomputer can't meet expectations if it doesn't have equally fast storage to support it.

NetApp E-Series storage with Lustre gives you consistent, near-real-time access to your data. E-Series storage systems can support any number of workloads simultaneously. To increase performance for metadata and small-file workloads, an NVMe flash tier running NetApp EF600 storage can deliver up to 44GBps throughput per scalable building block. Optimized for both flash and spinning media, E-Series systems include built-in technology that monitors your workloads and automatically adjusts configurations to maximize performance. With the 99.9999% reliability of E-Series systems, your HPC environment is available whenever and wherever you need it.

Maximize Cost Efficiency

With an HPC solution designed by ADS experts, you can avoid overpurchasing systems and components. ADS experts can configure a solution that meets your performance and capacity needs today and in the future without having to pay for components you don't need. In addition, ADS uses the open-source Lustre parallel file system, saving you tens of thousands of dollars in licensing costs.

When you're considering the cost of an HPC solution, your initial investment in hardware and software is just the beginning. To accurately assess costs, in addition to the deployment costs, you must also consider the costs of operating the solution after you have deployed it.

With the NetApp and Lustre solution, you get enterprise storage in price/performance-optimized building blocks that are built on the E-Series storage architecture and that make configurations of any size cost efficient.

Future-Proof Your Investment

To make sure that your HPC environment can handle today's requirements as well as those in the future, you need a solution that can respond quickly to data growth.

A solution built by ADS with NetApp E-Series and Lustre delivers an agile HPC infrastructure that scales easily and seamlessly. The flexibility and scalability of the solution enable it to support and adapt to evolving workloads, making it a strong foundation for future storage requirements. Modular storage building blocks composed of E-Series hybrid flash arrays give you a granular, building-block approach to growth. By increasing the number of storage building blocks, you can scale up the performance and capacity of the file system, enabling it to seamlessly handle the most extreme workloads.

Gain a Trusted Advisor

When you choose ADS, you gain a long-term partner who will stick with you to help make sure your solution meets your needs. Your success is always a priority, and the experts at ADS draw on their years of experience and strong relationships with industry-leading technology vendors to make sure that you get a solution that exceeds expectations now and in the future. ADS experts' deep knowledge of NetApp, IBM, and your environment enables them to make sure that you're getting all the benefits your solution offers. If you experience a problem with your solution, you can count on ADS to provide the support you need to resolve the issue quickly—no finger pointing and no runaround to different vendors. Customized support plans help ensure that you get the level of support your business requires.

About Applied Data Systems

Applied Data Systems is a leading high-performance computing system integrator. ADS partners with the leading technology companies to help customers solve both technical and financial objectives to drive success. ADS customizes offerings to fit customer requirements. ADS works with companies in the following vertical markets: Government National Labs, Higher Educational Research facilities, Life Science/Genomics, Media & Entertainment, and Oil & Gas. Learn more about ADS at applieddatasystems.com.

About NetApp

NetApp is the leader in cloud data services, empowering global organizations to change their world with data. Together with our partners, we are the only ones who can help you build your unique data fabric. Simplify hybrid multicloud and securely deliver the right data, services, and applications to the right people at the right time. Learn more at www.netapp.com.