

Storage Solutions

Customer Challenges

- Local FS caching is limited in scope
- Modern networks on 100G+ are faster than local SSDs
- With the correct networking stack, shared storage is faster than local storage
- NFS mounts are limited to 10Gbps
- No other storage systems can scale to billion of files

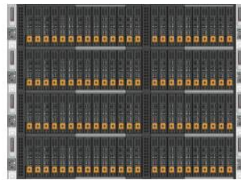
- 8 Storage Nodes
- 4U Rack Space
- 48 SSDs
- 2.5M IOPs (4K)
- 37.5 GB/s Bandwidth (1MB)
- Sub-400 ms Latency

- 16 Storage Nodes
- 8U Rack Space
- 96 SSDs
- 5M IOPs (4K)
- 75 GB/s Bandwidth (1MB)
- Sub-400 ms Latency

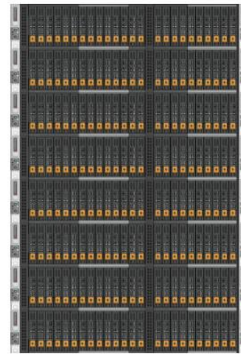
- 32 Storage Nodes
- 16U Rack Space
- 192 SSDs
- 10M IOPs (4K)
- 150 GB/s Bandwidth (1MB)
- Sub-400 ms Latency



SRS-AFBT08-WEKA-01



SRS-AFBT16-WEKA-01



SRS-AFBT32-WEKA-01

Linear Performance Scaling

Typical Applications

• R&D Labs



- For researchers, time spent in the high-performance computing (HPC) environment is very valuable. Downtime can disrupt years of research and waste numerous resources, so the supporting infrastructure must be extremely fast and highly available. As data grows exponentially, labs need the ability to scale capacity and performance at a very fast rate.
- The support IT infrastructure teams need to be able to easily manage hundreds of systems running in parallel.

• Oil and Gas



- With digital technologies, oil and gas companies must manage and store exabytes of data - including 2D and 3D seismic data, current and historic well data, maps, and more. Putting this data to use requires a high-performance computing infrastructure to process and deliver real-time analytics.
- For example, machine learning can help speed up and accurately identify where to drill new oil wells. Real-time data from oil rigs can help prevent downtime, optimize production, reduce environmental risks, and enhance operational safety.

• Media and Entertainment



- By moving to a more centralized, shared content repository, media operations can consolidate high-speed production workflows and rendering pipelines, accelerating large-scale transcoding and delivery architectures.
- They can also implement a global repository for optimized licensing and monetization workflows. Media and entertainment companies gain key benefits from this move, but along with this centralization comes a need for massive bandwidth, extreme capacity, and continuous availability from the underlying storage arrays. These needs can overwhelm media-specific storage systems.

• AI and Machine Learning



- To get the most value from AI, ML, and DL solutions, organizations must be able to quickly process and analyze massive amounts of data. The more data, the better the results.
- The storage solution must scale seamlessly to accommodate data coming in from IoT devices as well as data generated from machine learning and deep learning training.