ELEMENTS delivers highest ever benchmark score in practical video storage tests

Partnership with ThinkParQ to implement BeeGFS file system achieves unprecedented, real-world storage capabilities

Dusseldorf, Germany, 6 October 2021: ELEMENTS, provider of innovative, high-performance media storage and server systems for post-production and broadcast, has achieved the highest ever performance metrics in the SPEC VDA benchmarks. This is a result which guarantees unprecedented performance for the company's video storage systems. This remarkable performance is achieved using the BeeGFS file system, developed by technology R&D specialist ThinkParQ.

SPEC (Standards Performance Evaluation Corporation) is a not-for-profit body established to provide independent testing, with the goal of enabling users to make scientifically based choices on technology. It has established the video data acquisition (VDA) test, which quantifies server network performance by measuring the number of concurrent streams it can support. These are simulated, volatile video signals at around 36Mb/s per stream.

In the tests, an ELEMENTS BOLT array, using BeeGFS, achieved 11,000 concurrent streams, almost 15% more than the best delivered by competing systems. In doing so, its CPU efficiency was 107% better than the competitor. Together, these demonstrate real-world benefits of greater throughput, more stable and secure operation, and a reduced environmental impact.

"Of course, you can distort tests like VDA by throwing huge amounts of processing power at the challenge," said Heiner Lesaar, CTO of ELEMENTS. "It is important to understand that the system we submitted for test was typical of the architecture a media enterprise would actually use. These excellent results can be achieved by anyone who chooses an ELEMENTS storage network."

Contributing significantly to the benchmark success is the technology partnership between ELEMENTS and ThinkParQ, a spin-off from Fraunhofer ITWM, Center for High-Performance Computing, part of the world-renowned Fraunhofer Institute in Germany. Its goal is to develop the fastest, scalable, flexible and robust solutions, to be implemented in all industry sectors which demand performance-oriented environments.

The BeeGFS file system achieves high performance by transparently striping data across multiple storage nodes, with associated metadata also managed across multiple servers. The system has been used by organisations such as NASA, Shell and the Max Planck Institute. This structure makes it an ideal core technology for the intensive media networks provided by ELEMENTS, where ultimate reliability, resilience and very low latency are vital. BeeGFS will be available on ELEMENTS BOLT and ELEMENTS ONE towards the end of 2021.

"BeeGFS relies on open architecture, and is easy to implement across various platforms," added Lesaar of ELEMENTS. "This makes it the perfect file system for our innovation-driven, future-proof workflows, boosting still further our reputation for speed, security and flexibility."

Frank Herold, CEO of ThinkParQ added “BeeGFS has evolved into a world-wide valued file system offering maximum performance and robustness and is well-established in many areas including HPC, AI, Life Sciences and, Oil and Gas. We are very pleased to add the media industry to the growing list of applications, and the already impressive performance of ELEMENTS appliances makes this the perfect partnership.”

André Kamps, CEO of ELEMENTS said “These benchmark results are a remarkable endorsement of our continuing efforts to deliver the best performance for the specific needs of media users. This new partnership with ThinkParQ is tremendously exciting, and heralds a new era in high-capacity, highly responsive storage for all mission-critical media applications.”

Learn more about BeeGFS on ELEMENTS: https://elements.tv/solutions/beegfs-file-system

An in-depth analysis of the media storage benchmark results can be seen here: https://elements.tv/blog/elements-bolt--beegfs-set-a-new-spec-sfs-performance-high-score/

Official SPEC SFS results: https://spec.org/sfs2014/results/res2021q3/sfs2014-20210809-00078.html

About ELEMENTS:
Simplifying media workflows since 2011, the ELEMENTS line of high-performance media storage and server systems incorporates 10+ years of hands-on experience and in-depth knowledge in the post-production and broadcast industry. Ambitious to design solutions that not only fulfil the requirements of demanding media workflows, ELEMENTS also provide superior support. ELEMENTS follow an entirely different approach to any other vendor in the field and our proud to work with some of the best household names in the industry. More information can be found at www.elements.tv

About ThinkParQ GmbH

ThinkParQ GmbH strives to create and develop the fastest, most flexible, and most stable solutions for every performance-oriented environment. Established in 2014 as a spinoff from the Fraunhofer ITWM, Center for High-Performance Computing, ThinkParQ drives the research and development of BeeGFS, and works closely with system integrators to create turn-key solutions. Visit http://www.thinkparq.com for further information.

About BeeGFS

BeeGFS is one of the leading parallel cluster file systems, developed with a strong focus on performance and designed for very easy installation and management. If I/O-intensive workloads are your problem, BeeGFS is the solution. For more information, visit www.beegfs.io