



## **PRESS RELEASE: BeeGFS based burst buffer enables world record hyperscale data distribution**

Kaiserslautern, Germany, October 25 .2018, ThinkParQ announced today that BeeGFS, the leading parallel cluster file enabled a world record hyperscale data distribution with AIC and Zettar.

For the 3rd time running since 2016, BeeGFS has been instrumental in enabling three Zettar's world records including the latest 'Holy Grail' world record run: a long distance data transfer of **1 PB in 29 hours** (1 PiB = 1.1259 PB).

'With this trial, we have shown that Zettar zx is the world's only data transfer software whose performance is unaffected by distance, encryption, and checksumming. This is a Holy Grail that numerous parties, both academic and commercial, have tried hard to find for decades, but all have failed.'

'We are once more pleased with the simplicity, ease of management, and high-throughput of BeeGFS. Back in 2014, we evaluated GlusterFS, IBM GPFS, Lustre, and FhgFS, the forerunner of BeeGFS. BeeGFS easily became the choice for our Intel NVMe SSD based burst buffer implementation - we had a successful showing in SC14. The choice is still paying handsome dividends. BeeGFS has been a key reason why Zettar has had the ability since 2016 to help a user to transfer multiple PBs per week over any distance, with an appropriate production infrastructure.', says Dr. Chin Fang, Founder & CEO, Zettar Inc.

The world record was made possible with an ultra fast burst buffer formed with BeeGFS, running on two 1U servers from the High-Performance storage server vendor AIC and aggregating eight Intel Optane SSDs at each end. Together with Mellanox's InfiniBand interconnect for the storage service, the BeeGFS-based burst buffer provides the high throughput that Zettar zx hyperscale data distribution software needs for defying data gravity and realizing data mobility. This simple, compact, and record-setting setup is excellent for all BeeGFS users. Everything of the strenuous trial is of production-grade, from the datasets and file size range used, the hardware employed, and the shared production 5000 mile U.S. Department of Energy (DOE) Energy Science Network (Esnet) 100Gbps connection, with live competing traffic.

"It is an incredible time for BeeGFS, which once again has proven itself to be one of the fastest parallel file systems on the market. The scalability, flexibility, robustness and usability of BeeGFS is optimized in environments where performance matters." says Frank Herold CEO, ThinkParQ.

Based on the BeeGFS daemon concept, it is possible to enable a file system instance on the flight and use available SSDs/NVMe components on the client nodes and turn them into a burst buffer engine for nasty IO pattern. The BeeOND (**BeeGFS On Demand**) instances can be created and demolished with just a single simple command, which can easily be integrated into the prolog and epilog script of the cluster batch system, such as Torque, Slurm or Univa Grid Engine to allow smart IO management. This is a unique feature which increases the efficiency of the existing client nodes & speed-up critical applications.

"With the continued development and enhancements of BeeGFS we look forward to continually break these records with AIC and Zettar" Continues Herold.

"AIC's Max IO™ optimizes and balances IO for storage servers to deliver low latency, high performance storage services. As a result, AIC storage systems complements perfectly Zettar's all-in-one hyperscale data distribution software and ThinkparQ's fast BeeGFS to solve even the most demanding large-scale data transfer endeavours for distributed data-intensive enterprises.", says CT Sun, CTO AIC Inc.

**BeeGFS will be showcased at SC18 on stand #1628. To learn more about BeeGFS and its leading parallel file system please visit [www.beefgfs.io](http://www.beefgfs.io)**

#### **About BeeGFS**

BeeGFS is a parallel file system that was designed specifically to deal with I/O intensive workloads in performance-critical environments and with a strong focus on easy installation and high flexibility, including converged setups where storage servers are also used for compute jobs. BeeGFS transparently spreads user data across multiple servers. Therefore, by increasing the number of servers and disks in the system, performance and capacity of the file system can simply be scaled out to the desired level, seamlessly from small clusters up to enterprise-class systems with thousands of nodes, on-premise or in the cloud. BeeGFS is powering the storage of hundreds of scientific and industry customer sites worldwide. Visit [beegfs.io](http://beegfs.io) for more information.

#### **About ThinkParQ**

ThinkParQ was founded as a spin-off from the Fraunhofer Center for High Performance Computing by the key people behind BeeGFS to bring fast, robust, scalable storage solutions to market. ThinkParQ is responsible for support, provides consulting, organizes and attends events, and works together with system integrators to create turn-key solutions. ThinkParQ and Fraunhofer internally cooperate closely to deliver high quality support services and to drive further development and optimization of BeeGFS for tomorrow's performance-critical systems. Visit [www.thinkparq.com](http://www.thinkparq.com) to learn more about the company.

#### **About Zettar:**

[Zettar Inc.](http://Zettar Inc.) delivers a GA-grade, scale-out, petascale-proven all-in-one hyperscale data distribution software solution capable of multi-100+Gbps, along with a reference design for a data transfer cluster, and a burst buffer reference design. Together they are the foundations of a highly efficient petascale-proven data transfer solution today. The critical burst buffer design has been realized using Intel NSG's NVMe and/or Optane SSDs, the industry leading AIC SB122A-PH 1U 10-bay NVMe storage servers and the simple, easy-to-manage, and fast BeeGFS. Zettar is a National Science Foundation funded software startup in Palo Alto, California, the U.S. It collaborates with the U.S. DOE Office of Science national laboratories, supercomputing centers, and ESNet. Visit [zettar.com](http://zettar.com) for more information.

#### **About AIC:**

AIC is a leading provider of both standard OTS (off-the-shelf) and OEM/ODM server and storage solutions. With expert in-house design, manufacturing and validation capabilities, AIC's broad selection of products are highly flexible and configurable to any form factor, standard or custom. AIC leads the industry with over 20 years of experience in mechanical, electronic, system-level engineering as well as a dedication to innovation and customer satisfaction. Headquartered in Taiwan, AIC has offices and operations throughout the United States, Asia and Europe. Visit [aicipc.com](http://aicipc.com) for more information.

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