New Major Release of BeeGFS with built-in High-Availability for Storage Servers

Kaiserslautern, Germany, Aug. 12th – Fraunhofer ITWM and ThinkParQ are proud to announce a new major release of the parallel file system BeeGFS. After several months of public beta testing, the new version 2015.03-r1 was officially released. The primary focus for this new release was the introduction of high availability for storage servers as an enterprise feature. Based on data replication across different storage servers, automatic failovers will happen in case of storage server failures and self-healing will resynchronize the server when it comes back.

Additionally, in this release BeeOND (BeeGFS on demand) was added as a stand-alone package. BeeOND provides a tool that can create complete BeeGFS instances on-the-fly with a single command. While this functionality was basically already usable in previous releases, usability was considerably improved now. Within the BeeOND package, users can not only find tools to create and destruct a file system, but also tools to perform a parallel copy of data between file systems (e.g. a global cluster storage and a per-job BeeOND instance).

Besides that, BeeGFS now supports extended attributes, as well as access control lists (ACLs). In addition to the optional GUI-based setup of BeeGFS, a general usability improvement is the introduction of new setup tools, which allow command-line based setup of the BeeGFS services without the need to edit configuration files. To optimize performance of multi-target storage servers under high load, the storage server worker threads are now grouped and dedicated to the individual storage targets, resulting in better balance and fairness of parallel client request handling. Other performance improvements include a new aggressive low-latency mode, metadata access optimizations and enhancements for many-core servers. For a complete list, please refer to the changelog document, which accompanies the release packages.

As before, the file system client native kernel module is still compatible with a wide range of Linux kernel versions, starting with 2.6.18, while the new version adds support for the recent 4.0 kernel.

This new release is another big step for the development of BeeGFS. Especially high-availability and ACLs have been requested by many users and enables BeeGFS now to be a solution for a number of additional use cases. As always, free download is at www.beegfs.com and commercial support can be obtained through ThinkParQ or one of the international partners.

About BeeGFS

BeeGFS is the new name for the well known parallel file system FhGFS. BeeGFS is developed by the Fraunhofer Institute in Kaiserslautern, Germany. It provides excellent performance and scalability – but combines it with ease of use, which is unique for a file system targeted at High Performance Computing. Additionally, it is extremely flexible and doesn’t lock users in with specific Linux distributions or kernel versions. With these key differentiators, BeeGFS is adopted in a large number of scientific and commercial sites as the default choice for a work-filesystem for HPC.

About Fraunhofer and the Fraunhofer ITWM

With more than 80 research units at different locations in Germany, the Fraunhofer-Society is the largest organization for applied research in Europe. The majority of more than 23000 staff members are qualified scientists and engineers. Fraunhofer hosts research centers and representative offices in Europe, USA, Asia and in the Middle East. The Fraunhofer Institute for Industrial Mathematics (ITWM) is located in Kaiserslautern. The main business fields are industrial mathematics and information technology, with a dedicated Competence Center, specializing on High Performance Computing.
The Fraunhofer Competence Center for HPC (CC-HPC) offers innovative HPC solutions for the industry and the HPC market. CC-HPC's research and development is focused on HPC tools, applications for seismic imaging, complete development and execution frameworks, and server based visualization. The CC-HPC works together with industry partners to develop HPC applications and to adopt software to HPC needs. Its main HPC tools are BeeGFS, the Global address space Programming Interface (GPI) and the GPI-Space parallel programming and execution framework.

About ThinkParQ

ThinkParQ was founded as a spin-off from the Fraunhofer Center for HPC in Kaiserslautern to bring BeeGFS to the market. ThinkParQ is responsible for support, provides individual presentations on demand, organizes events, attends exhibitions and works very closely with system integrators in creating turn-key solutions.