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Press Release

November 14, 2014

Advanced Security, File Scalability and Hadoop 2.x Support Featured in OrangeFS 2.9 Release

The new OrangeFS 2.9 release adds security options to OrangeFS with new key-based and certificate-based security modes, advanced file scalability with distributed directory entry metadata and support for the latest versions of the Hadoop ecosystem, providing the reality of high performing consolidated HPC and Big Data storage. This release contains more detailed documentation and has been extensively tested on bare metal and in Openstack and AWS Cloud on the latest versions of RedHat, CentOS, SUSE, Ubuntu, and Fedora.

Las Vegas, NV - AWS (PRWEB)—Today Omnibond Systems, LLC and the OrangeFS development community at AWS re:Invent announced the release of OrangeFS, version 2.9 with Hadoop 2.x ecosystem support, capability based security and distributed metadata for directory entries.

OrangeFS enhances Big Data computation by delivering Hadoop Compatible File System (HCFS) support for the latest versions of the Hadoop ecosystem. The OrangeFS Hadoop Client also supports accessing multiple independent OrangeFS systems. Further, existing Hadoop clusters using Hadoop Distributed File System (HDFS) may utilize other OrangeFS systems as an alternative method of distributed storage. A Hadoop user can easily specify the preferred file system. The OrangeFS Hadoop Client extends and enhances the ability to share HPC and Big Data resources and reduces the time-consuming operations of data transfers from one environment to another. Together, these two open source products can perform massive computations at multi-petabyte scale. Additionally, OrangeFS provides seamless integration with other HPC resources.

Capability-based security is a significant OrangeFS 2.9 enhancement with two new security modes. Key-based security, designed for a trusted client infrastructure, provides each OrangeFS client and server system with a cryptographic key pair. Certificate-based security utilizes user certificates and associated key pairs. OrangeFS can leverage LDAP directories to provide a consistent mapping of identities to certificates. Certificate-based security mode supports untrusted clients, so it is suited for dynamic environments. Once validated with either mode, file operations leverage signed capabilities for efficient scalable file operations.

OrangeFS stripes large data files across multiple servers to provide highly concurrent access; however, prior to version 2.9, the metadata for large directories were stored only on a single server, potentially creating a hotspot with a large number of concurrent requests. OrangeFS 2.9 includes a scalable distributed directory service to support efficient concurrent access to the progressively larger directories

of the future. Scalable distributed directories make OrangeFS 2.9 an attractive option for data monitoring and real-time application monitoring which can require creation of many files under the same directory.

“This release is a major milestone in the transformation of scalable distributed file systems,” said Boyd Wilson, from Omnibond, “starting with a new security infrastructure as a foundation, distributed metadata scalability improvements and a rigorous testing cycle laying the foundation for the future generations of scalable distributed storage software.”

Omnibond will be on the floor at AWS re:Invent and SC14 and will be discussing the new OrangeFS release and other products including CloudyCluster beta, built on the capabilities of OrangeFS.

OrangeFS 2.9 can be downloaded at OrangeFS.com and OrangeFS.org, home of the software’s development community. OrangeFS.com also has information on enterprise support, development and maintenance services for OrangeFS. Information on Omnibond’s other products can be found at omnibond.com.

About OrangeFS
OrangeFS (Orange File System) is the next evolution of the open source Parallel Virtual File System (PVFS), capable of using many storage servers or cloud instances and combining their throughput capability creating a high-performance storage cluster. OrangeFS is designed for combined high-performance computing (HPC) and Big Data workloads that require high-speed access to storage for parallel computing applications. OrangeFS continues to embrace these high-end computing needs while addressing new directions in stability, resilience and diverse client access. For more information about the OrangeFS user and development communities, visit OrangeFS.com and OrangeFS.org.

About Omnibond
Omnibond is a technology development company currently focused on software engineering and support for networked identity/access management, HPC and Big Data parallel virtual file systems, and computer vision technologies. Our newest forays include commercial-grade product services for OrangeFS. For more information visit Omnibond.com.

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