Berkeley Storage Manager (BeStMan)

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What it does?

- **Manages underlying storage for files.**

- **Supports multiple storage partitions.**

- **Works on existing storages with posix-compatible file systems, and adaptable to special file systems and storages with customized plug-in.**

- **Supports multiple transfer protocols and load balancing for multiple transfer servers**

- **Optional Data Movement Broker mode.**

- **Implements Storage Resource Management (SRM) interface v2.2, and compatible and interoperable with other 4 SRM implementations in WLCG.**

- **More details: http://sdm.lbl.gov/bestman/**

  - **http://sdm.lbl.gov/bestman/docs/bestman-asim-091006.pdf**

Accomplishments

- **RPM distribution through OSG software stack as well as a packaged download.**

- **Highly customizable and pluggable for the storage needs.**

- **Open source under BSD license.**

- **Scalable performance with some file systems and storages, such as Xrootd and Hadoop.**

- **Organized an international standard through OFG - GFD.129, 2008.**

- **US Patent 8,705,342 B2, 2014. Co-scheduling of network resource provisioning and host-to-host bandwidth reservation on high-performance network and storage systems.**

Impacts

- **Enable scientific collaborations with uniform interface to the distributed storage resources.**

  - **Enable storage accessibility and improve science productivity.**

- **43 BeStMan deployments worldwide and 5 backend deployments for CERN EOS system, as of 4/16/2015.**

- **Being used in scientific collaborations such as ESGF, OSG, and WLCG.**