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Experience in running relational databases on clustered storage

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CERN IT-DB group is migrating its storage platform, mainly NetApp NAS's running on 7-mode but also SAN arrays, to a set of NetApp C-mode clusters. The largest one is made of 14 controllers and it will hold a range of critical databases from administration to accelerators control or experiment control databases. This talk shows our setup: network, monitoring, use of features like transparent movement of file systems, flash pools (SSD + HDD storage pools), snapshots, etc. It will also show how these features are used on our infrastructure to support backup & recovery solutions with different database solutions: Oracle (11g and 12c multi tenancy), MySQL or PostgreSQL. Performance benchmarks and experience collected while running services on this platform will be also shared. It will be also covered the use of the cluster to provide iSCSI (block device) access for OpenStack windows virtual machines.

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