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Elastic personal clusters on Cloudstack

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mCernVM(<http://cernvm.cern.ch/portal/ucernvm>) is an microimage allows one easily to create on-demand personal contextualized HPC clusters, and workstations. At present time mCernVM itself and its deployment mechanism is tested to run on OpenStack platform deployed at CERN and on Amazon EC2. It is assumed that number of supported cloud platforms will be extended significantly.

Current work is a first successful experience to run mCernVM clusters on platform that differs from OpenStack and Amazon (namely CloudStack). While adopting mCernVM deployment process to CloudStack it were found and fixed a number of bugs in CloudStack.

As a result of this work with help of CernVM-online (<https://cernvm-online.cern.ch>) we now able to create virtual clusters and workstations on both CERN OpenStack Cloud and private SPBU CloudStack. Clusters and workstations are deployed using individual EC2 keys, while authorization on cluster may be performed either by created login/password pair or through ALICE VO and grid certificates.

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