

Kindura - archiving with iRODS clouds

We present the architecture and design of a "cloudy" data infrastructure for archiving and backup. By reducing the cloud elasticity, we are able to build a more cost effective service for archiving. DuraSpace and Fedora provide friendly front- ends for users. We have investigated several options for the back end, focusing currently on a federated iRODS infrastructure which will permit automatic replication and metadata extraction. All services will appear as "cloud-like", even internal ones – it is thus a hybrid approach that combines the advantages of the commercial/external (public) cloud with an institutional/consortium (private/community) cloud. This project will provide Infrastructure-as-a-Service (IaaS) components, via storage and compute services, but more importantly it will combine these, using DuraCloud and Fedora as enabling technologies, to provide an integrated Software-as-a-Service (SaaS) package of repository-centric services. While this is work in progress, we can already present the results In future work, DuraCloud will be extended to broker between the clouds.

Primary authors : Dr. JENSEN, Jens (STFC RAL)

Co-authors : Dr. WADDINGTON, Simon (King's College, London) ; Dr. HEDGES, Mark (King's College, London) ; Mr. DOWNING, Roger (STFC)