

Title: Heavenly Collaboration: Chronopolis and DuraCloud

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Proposal:

Since late 2011, Chronopolis, SDSC Cloud Storage, and DuraCloud have been collaborating in an effort to add yet another layer of reliability to the field of distributed digital preservation. Each of our services have been designed to address a set of needs within the preservation community. Together, we have developed a single service that combines the archiving sensibilities of Chronopolis, the cost-effective, academic cloud storage of SDSC, and the provider-neutral access and preservation capabilities of DuraCloud. This brief presentation will provide an overview of the technical integration (including diagrams, data flow representations and an explanation of services), as well as describe the factors enabling this distributed team to create a successful collaboration.

The DuraCloud/SDSC/Chronopolis integration was conceived of as a way to bridge a cost-effective dark archive, the Chronopolis digital preservation network, with the online, dynamically accessible, provider-independent, preservation platform of DuraCloud. Prior to this effort, DuraCloud provided a mediation layer over three underlying commercial cloud storage providers: Amazon S3, Rackspace CloudFiles, and Microsoft Azure. The goals of the integration were to (1) add an academic cloud store (SDSC Cloud Service) to this list of providers supported by DuraCloud as well as to (2) enable DuraCloud users to replicate content to a geographically distributed, TRAC certified, preservation network (Chronopolis). Among other benefits, this integration supports the preservation strategy of distributing content across multiple geographic, platform, and administrative domains.

In addition to the technical integration, this process has been successful because of a dedication to cross-organizational collaboration. Collaboration is something that we as a community espouse as vital and to a greater or lesser degree aspire to achieve. However, despite the desire, successful collaboration more often than not fails to reach its potential. Having reflected on the Chronopolis/DuraCloud relationship, there are a few simple elements which appear to have facilitated our joint success:

- Shared vision and goals for the integration
- Regular (weekly) meetings/calls
- Open, broadcast communication channels (Skype and email list)
- Collaborative workspaces (wiki and GitHub)
- Opportunistic face-to-face meetings
- Dedicated time
- Trust fostered by open, frank discussion among the participants

The recent Yahoo announcement notwithstanding, distributed work teams will continue to become increasingly common. The nuances of every community dictates what distributed approaches will or will not lead a team to success. Discovering and noting which techniques work within our open source, open access, repository, preservation and archiving community will ultimately help enable us to leverage our scarce resources towards tackling the challenges that are greater than any single institution.