

Public Abstract

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Title:Facilitating Large Data Sharing In Collaborative Environment Using Dropoff

Researchers belonging to multiple institutions forming a collaborative environment are increasingly working with large files and datasets, which they often need to share for their collaboration. There is no provision in the current generation systems to transfer large data among collaborators in multiple institutions, without having to provision user credentials at some common location that all collaborators can use. Dropoff is a system for sharing large data combining several transport, storage and security methods to allow researchers to share large files quickly and easily for a specified period in a trusted environment. Dropoff is an enhanced implementation of a project called Filesender.

Dropoff provides services to upload a large file from the user's machine and send a download URL link for the file to recipients through email. It is enhanced to provide more security, administration services and additional upload/download features that are necessary and useful in a shared collaborative environment. The current project replaces the SimpleSAML authentication mechanism with a Shibboleth and X.509 certificate based authentication mechanism for authenticating users. It secures the download of a file by forcing the recipients to authenticate and thus making sure that only the intended recipient downloads a file. It allows the user to upload and share a file from the user's data repository and download it to the data repository if one exists for that particular user. It also provides an implementation to have distributed administrator users such that the administrator can administer files belonging to the same organizational domain as the administrator.