The NCAR Research Data Archive (RDA) contains a large and diverse collection of meteorological and oceanographic observations, operational and reanalysis outputs, and remote sensing datasets to support atmospheric and geoscience research. The RDA contains greater than 600 dataset collections which support the varying needs of a diverse user community. The number of RDA users is increasing annually, and the most popular method used to access the RDA data holdings is through web based protocols, such as wget and cURL based scripts. In 2014, 11,000 users downloaded greater than 1.1 petabytes of data from the RDA, and customized data products were prepared for more than 45,000 user-driven requests.

In order to further support this increase in web download usage, the RDA is implementing the Globus data transfer service to provide a GridFTP data transfer option for the user community.

Acknowledgments / Connect

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Managing Globus shares

All Globus data shares are listed in the RDA user dashboard, where users can delete and/or resend Globus share invitations assigned to their user account.

Dashboard

User Interface

1. User requests a Globus data share from the RDA dataset interface

2. Accept e-mail invitation from Globus

   Globus endpoint share invitation

   You're invited to use "rda#datashare/ds083.2".
   You can accept the RDA Globus alternate identity service share request using the following steps:
   1. Accept e-mail invitation from Globus
   2. Transfer data via the Globus web interface, Globus transfer REST API, or command line interface (CLI)

   1. Single, permanent shared endpoint for all data shares
   2. Requested data copied to subdirectories under shared endpoint source path
   3. acl -add CLI command grants read permission to user

   acl -add rda#datashare/ds083.2/
   --perm=r
   --email=tcram@ucar.edu

   Alternate Identity login

   The RDA subscribes to the Globus Alternate Identity service, which allows RDA users to log into Globus with their RDA credentials (initial Globus account login required).

   Authentication is achieved via a Myproxy-Oauth client run on a Tomcat server. The PAM MySQL module interacts with our in-house user database to validate login credentials.

   Endpoint Manager / Metrics

   Globus Endpoint Manager API
   Method = GET
   URL
   https://transfer.api.globusonline.org/v0.10/endpoint_manager/task_list
   Headers = (\"Authorization\": \"Globus-GoauthToken $GOTOKEN\")
   Filters = (\"filter_endpoint\":\"rda#datashare\",
            \"filter_task_id\":\"task_id\",
            \"filter_username\":\"username\",
            \"filter_completion_time\":
            \"YYYY-MM-DDTHH:MM:SS\"")

Usage Nov 2014 thru Jun 2015:
   88 users
   19 TB transferred