

Goal

The **dataclient** software aims to allow data transfer to and from a GridFTP server without the need for the users to set up, maintain and update certificates. The access to remote storage resources requiring X.509 certificates is guaranteed without asking the user to obtain a certificate and setup the whole X.509 infrastructure on his end.

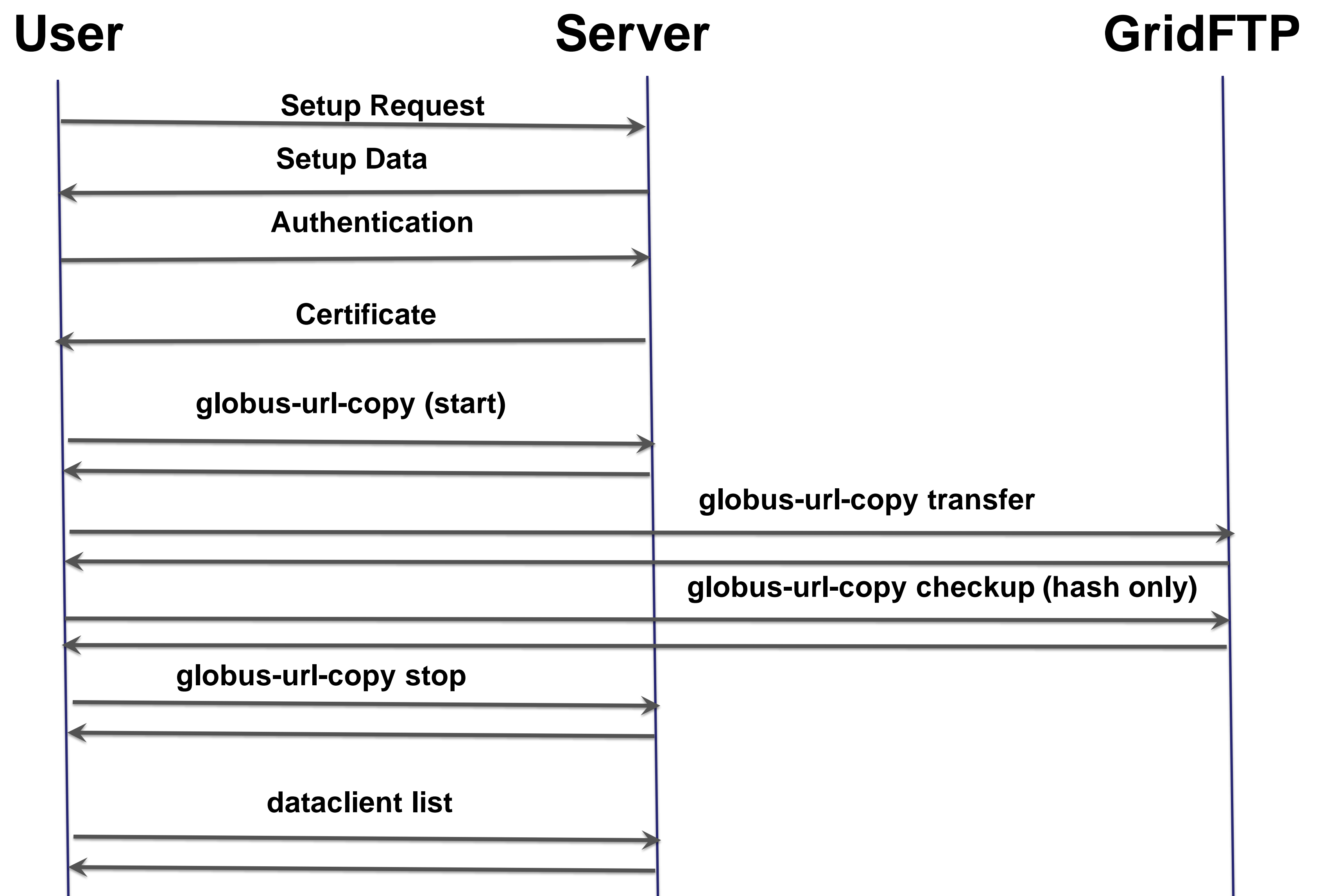
Architecture

General view

A client acts as a wrapper to globus-url-copy, but also creates and manages a full X.509 certificate environment on his behalf via an online CA to which the user authenticates via Kerberos credentials

User setup

Another key feature is that the only requirements in the user installation is the presence of a reasonably new version of the Python interpreter and a copy of the **dataclient** client script.



Architecture

Client-side

Using dataclient is as easy as:

```

$ dataclient          # sets the system up
$ dataclient reauth  # authenticates the user
$ dataclient <guc options> # transfers files
$ dataclient list    # gets file catalog
$ dataclient help    # shows the help
    
```

Dataclient supports all the command line flags available for globus-url-copy.

Server-side features

- One Online CA for each experiment
- Backed by CNAF Kerberos credentials
- User details (experiment) on CNAF LDAP
- Automatically updated user-side infrastructure when IGTF releases a new CA bundle
- No installation required user-side
- VOMS-compliant
- Automatic upload verifications with MD5 hash
- Faulty or interrupted transfers are logged and reported
- Protection against multiple concurrent updates to the same file
- Ability to upload/download whole directories
- No difference between this and a standard experiment from the site point of view

Other capabilities

Full Control

CNAF administrators have full control of the remote machines, and can run commands on them with full administrative privileges, without requiring the root password.

Catalog

All uploads from an experiment are registered in a catalog available to all experiment members.

Limitations

Only one VOMS group allowed per experiment.