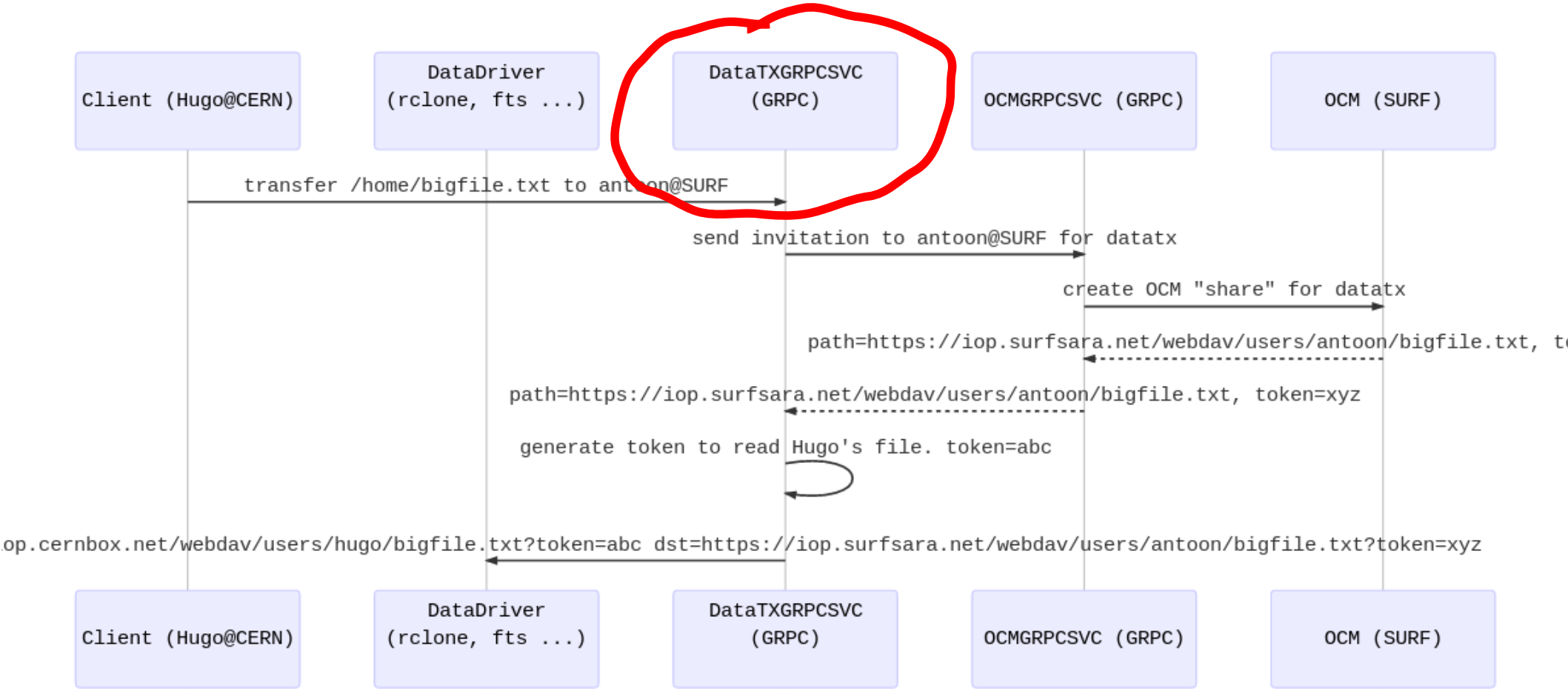
DataTXGRPCSVC

DataTXGRPCSVC

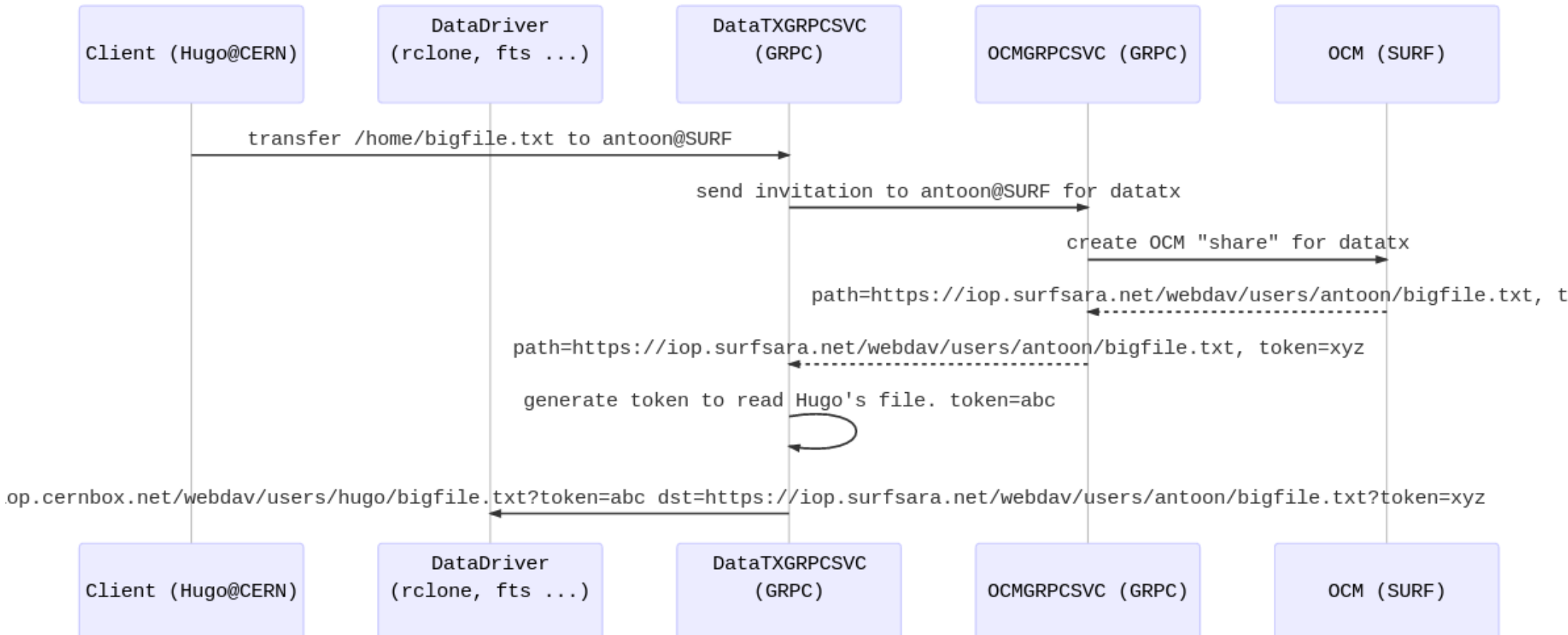
- Manages data transfers
- Data transfer mechanism agnostic
  - Specific stuff should go into the datadriver


Client (Hugo@CERN)
DataDriver (rclone, fts ...)
DataTXGRPCSVC (GRPC)
OCMGRPCSVC (GRPC)
OCM (SURF)
transfer /home/bigfile.txt to antoon@SURF
send invitation to antoon@SURF for datatx
create OCM "share" for datatx
path=https://iop.surfsara.net/webdav/users/antoon/bigfile.txt, t
path=https://iop.surfsara.net/webdav/users/antoon/bigfile.txt, token=xyz
generate token to read Hugo's file. token=abc
op.cernbox.net/webdav/users/hugo/bigfile.txt?token=abc dst=https://iop.surfsara.net/webdav/users/antoon/bigfile.txt?token=xyz
Client (Hugo@CERN)
DataDriver (rclone, fts ...)
DataTXGRPCSVC (GRPC)
OCMGRPCSVC (GRPC)
OCM (SURF)

DataTXGRPCSVC Flow

- Request comes in and input is validated
- If credential has been specified then
  do the transfer and we're done
  else
  send an invite

DataTXGRPCSVC Flow



DataTXGRPCSVC Flow

- If max waittime for invite acceptance has expired then
  delete the transfer
- If invite has been declined then
  delete the transfer

DataTXGRPCSVC

- Three functions (CS3API)
  - do_transfer
    which does the stuff above
  - get_status
    returns status of a transfer
    i.e. waiting_for_invite_acceptance, finished, transfers_in_progress,….
  - destroy_transfer

DataTXGRPCSVC

1. do_transfer
    a. src (mandatory)
    b. dest (mandatory)
    c. info to create remotes (mandatory)
    d. credential (optional, can be left empty)

    returns
        i. transfer id
        ii. text (optional)
            1. error message
2. get_status
    a. transfer id

    returns
        i. status
            1. PENDING
            2. IN_PROGRESS
            3. FINISHED
            4. INVITE_NOT_ACCEPTED_ON_TIME
        ii. text (optional)
            1. error message
3. destroy_transfer
    a. transfer_id

    returns
        i. status
            1. OK
            2. NOTOK
        ii. text (optional)
            1. error message

DataTXGRPCSVC

- Need to specify
  - max wait time for invite acceptance
  - max time that transfer is cached

Open question

- On the client side it is possible to abort the transfer, but does the other side need to have this capability?
  - Revoke token?

Some other thoughts

- Datadriver needs to implement the transfer mechanisms (rclone, filesender, fts, rucio) specific functions to assist do_transfer, get_status and destroy_transfer
- DataTXGRPCSVC can be generic