

SURF RESEARCH DRIVE

ERASMUS UNIVERSITY ROTTERDAM

6 APRIL 2020

PART II: ADMINISTRATION



SURF

SESSION 2: ADVANCED FUNCTIONALITY

Administration of an instance

Agenda advanced functionality

- Presentation
 - User accounts, roles, groups, quota and permissions
 - Dashboard
 - Contract and project folder management
 - Additional features
- Hands-on
- Closing
 - Wrap-up
 - Evaluation

User accounts

- Personal access for a user:
 - Up/download data
 - Share
 - Invite users
 - Collaborate on documents
- Important:
 - Anyone can add accounts by sending invitations
- Authentication:
 - SURFconext vs local

The screenshot displays the SURF Research Drive Dashboard. At the top, there is a green navigation bar with 'Menu' and 'Dashboard' on the left, and the 'SURF RESEARCH DRIVE' logo on the right. Below the navigation bar, the main heading is 'SURF Research Drive Dashboard'. There are two tabs: 'Projectfolders' and 'Gebruikers'. The 'Gebruikers' tab is active, showing a 'Nieuw Account' section with a table containing columns for 'Naam' and 'Email'. A modal window titled 'New Personal Account' is open, featuring a form with 'Name' and 'Email' input fields, each containing placeholder text ('name' and 'email' respectively), and a 'Submit' button.

Accepting invitations

- An invited user will get an invitation email
- Choose between:
 - Local account
 - Organisational account
- For guests always select local account
- On branded instances:
 - Only hosting institute SURFconext available

Kies de methode welke u wenst te gebruiken om in te loggen

Let op: Indien u al toegang heeft tot ResearchDrive kunt u [hier inloggen](#).
Kies anders uit een van de onderstaande opties.

Lokaal account

Er wordt een apart (lokaal) account aangemaakt dat alleen voor u geldig is.

Organisatieaccount

Research Drive wordt als nieuwe applicatie gekoppeld aan uw organisatie.
Uw kunt met uw organisatieaccount inloggen in Research Drive.

Account authentication implications

Action	Local account	SURFconext account
Creating an account	Anyone can create local accounts	Anyone can create SURFconext accounts
Manageability	You can immediately upon creation manage the account	The user needs to log in first, and even then it may take up to 10 minutes before you can manage the account
Resetting passwords	You can reset passwords for users*	As the password is tied to the institutional account, only the institution can reset the password.
Deleting an account	When you delete an account it is gone, and so are all his files outside the project folder(s). The user can no longer log in.	When you delete an account it is gone, and so are all his files outside the project folder(s). But, the user can log in again, and the account will be recreated. Only the institution can revoke access.

*in development

User roles

Role	Typical use	How?	Created by whom?
Site administrator	Manages whole instance and creates management accounts, sets initial quotas, etc.	Via system group managed by SURF	SURF
Dashboard administrator	Manages all contracts, can add new contracts	Specific user account	Administrator
Contract administrator	Manages an existing contract in the dashboard, as well as budgets for project folders	Specific user account	Administrator
Data steward/manager	Manages data in project folder(s) and assign permissions to users and/or groups	Permissions per folder	Contract administrator
Member	Any user	Added by administrator or by invitation	Anyone

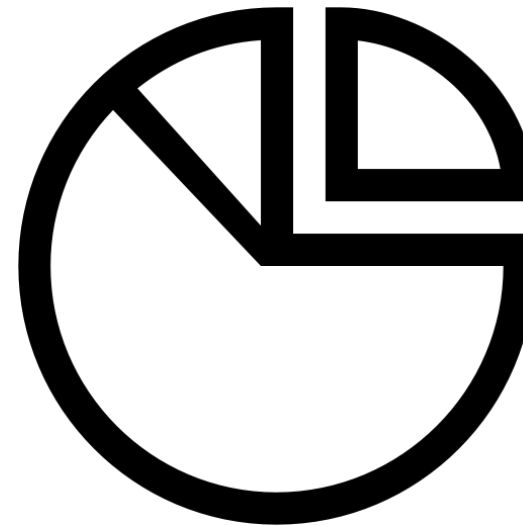


User groups

- Groups:
 - Determines role and possibilities of a bundle of user accounts
 - Can be used for assigning permissions to a number of people at the same time
 - Have a single (group) administrator
- Two types:
 - System-wide groups (managed by site administrator)
 - Custom groups (managed by user)
- All groups are visible to everyone within an single instance

Quota

- A quota determines the amount of storage available for a given account or project folder
- Types
 - Personal quota
 - Project quota (implicit)
- Important:
 - Personal storage is really private!
 - Deleting an account, deletes its personal data
 - Quota = 0 means project storage only



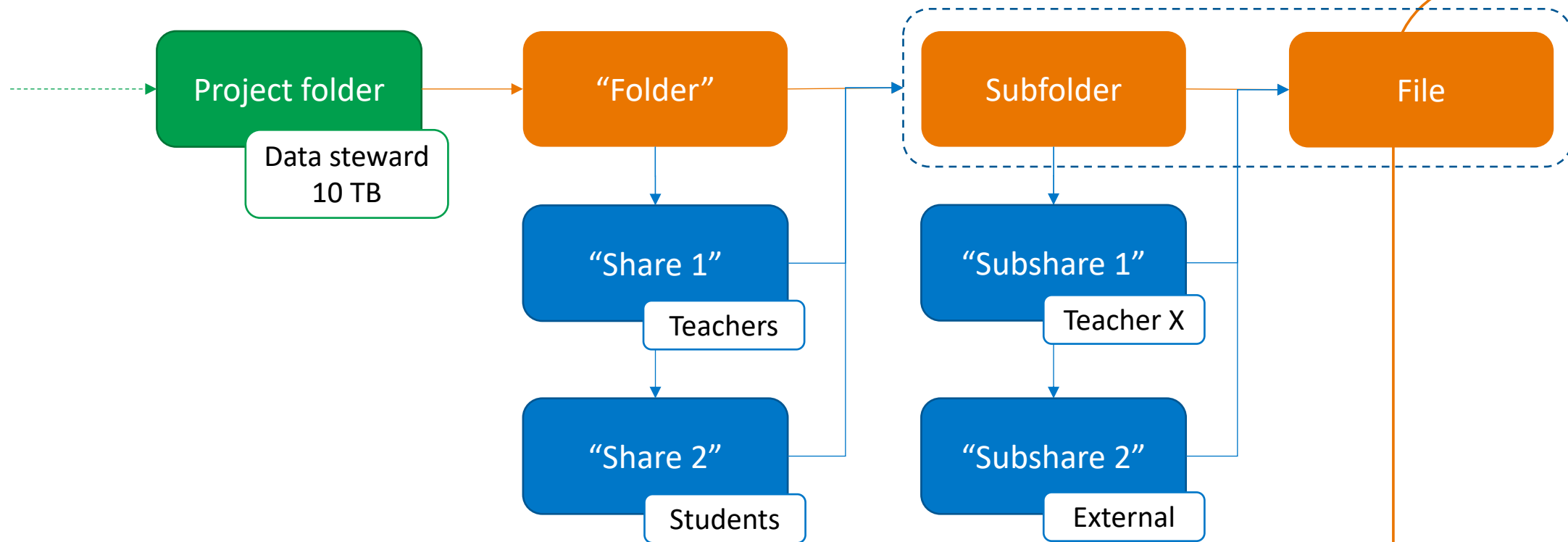
Permissions

- Permissions limit or enable usage of files or folders
- Permissions are inherited from parent folders, unless specifically changed
- Applicable to users and groups that have gained access to file or folder

Permission	Description
Can share	User or group can re-share this or child item
Can edit	User or group can edit or collaborate on child items in folder, move files or folders
Create	User or group can create and add new items in folder, rename existing folders
Change	User or group can upload and replace existing items in folder
Delete	User or group can delete existing items in folder

Share links and permissions

- Shares create additional links to existing files and/or folders
 - Each have their own permissions
 - Can be renamed individually, invisible to original sharer (with right permissions)



Sharing and permissions in-depth

- Sharing:
 - Only folder name of shared folder visible to user
 - Name changes inside shared folder are visible to all
 - Name change of share by sharees is not visible to sharer*
- Permissions hierarchy:
 - Higher-level folders determine permissions for subfolders
 - Specific subfolder permissions overrule higher-level permissions!
- Not possible*:
 - Move files or folders out of shared folder by sharee

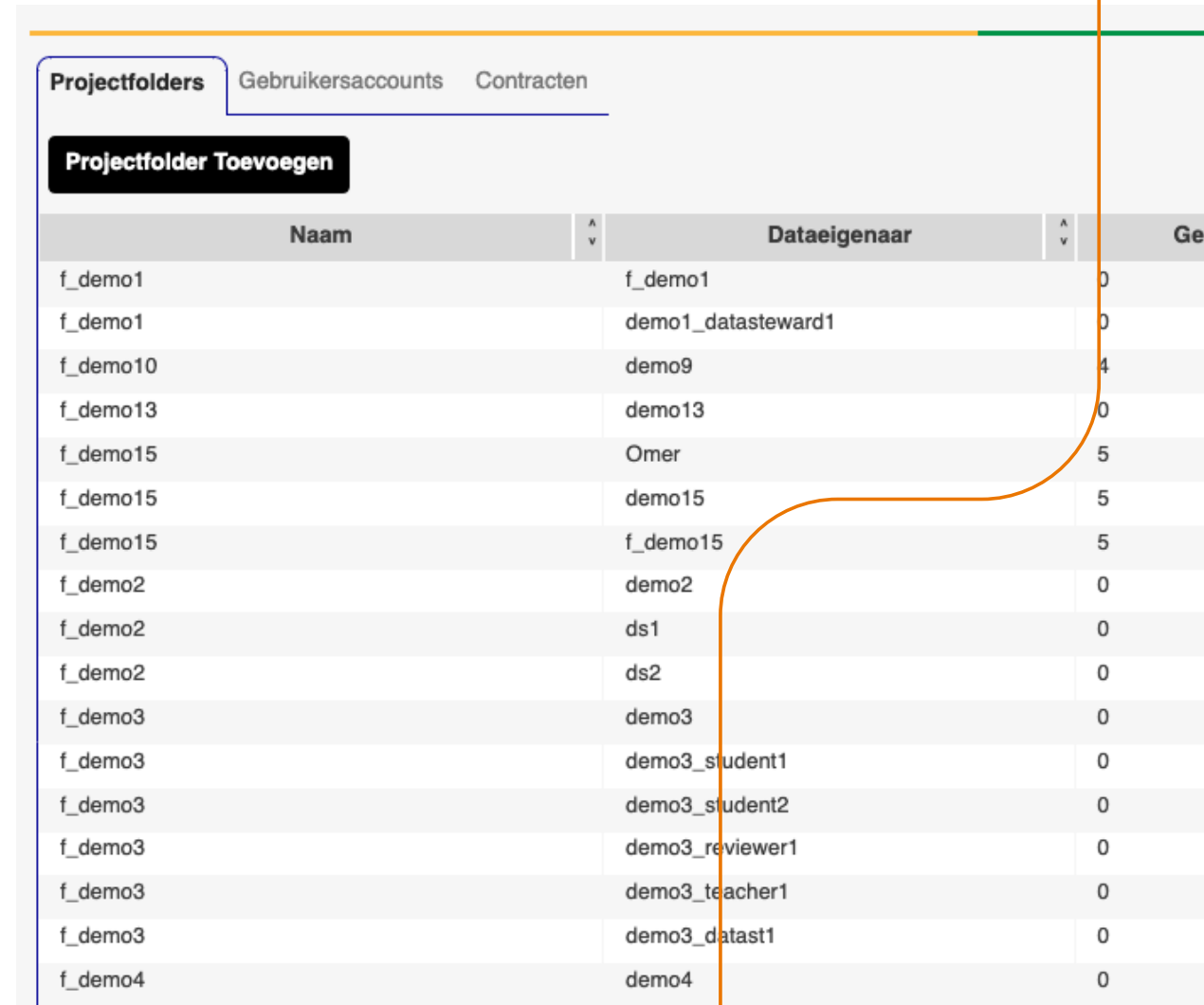
* with right permissions

Secure sharing workarounds

- Strategy:
 - Create subfolders for specific purposes, e.g. raw data, active data, upload
 - Create separate shares for every folder with required permissions
 - Disable resharing permission!
- Thus:
 - Data steward has sharing permission solely and thus manages all access
 - Project participants request sharing of folders for new/external users to data steward

Dashboard / portal

- Management portal for:
 - Project folders
 - User accounts
 - Contracts
- Accessible to anyone, but only relevant data will be shown
- Invite new/external users here!



Naam	Dataeigenaar	
f_demo1	f_demo1	0
f_demo1	demo1_datasteward1	0
f_demo10	demo9	4
f_demo13	demo13	0
f_demo15	Omer	5
f_demo15	demo15	5
f_demo15	f_demo15	5
f_demo2	demo2	0
f_demo2	ds1	0
f_demo2	ds2	0
f_demo3	demo3	0
f_demo3	demo3_student1	0
f_demo3	demo3_student2	0
f_demo3	demo3_reviewer1	0
f_demo3	demo3_teacher1	0
f_demo3	demo3_datast1	0
f_demo4	demo4	0



<https://wiki.surfnet.nl/display/RDRIVE/Research+Drive+Dashboard>

Contract management*

- Dashboard administrator can manage all contracts
- Contract administrator manages specific existing contracts
- Contracts have:
 - Unique ID
 - Name and owner (contract admin)
 - Start and end date
 - Budget, quota, in use
- One or more contacts can be added

Contractnummer

contractnummer

Save

Reset

Contacts

naam

email

Edit

Contractdetails

beschrijving

Save

Reset

eigenaar

Save

Reset

email eigenaar

Save

Reset

startdatum

Save

Reset

einddatum

Save

Reset

budget

Save

Reset

quotum

450000.000Gb

gebruik

0.011Gb

status

Save

Reset

*in development

16

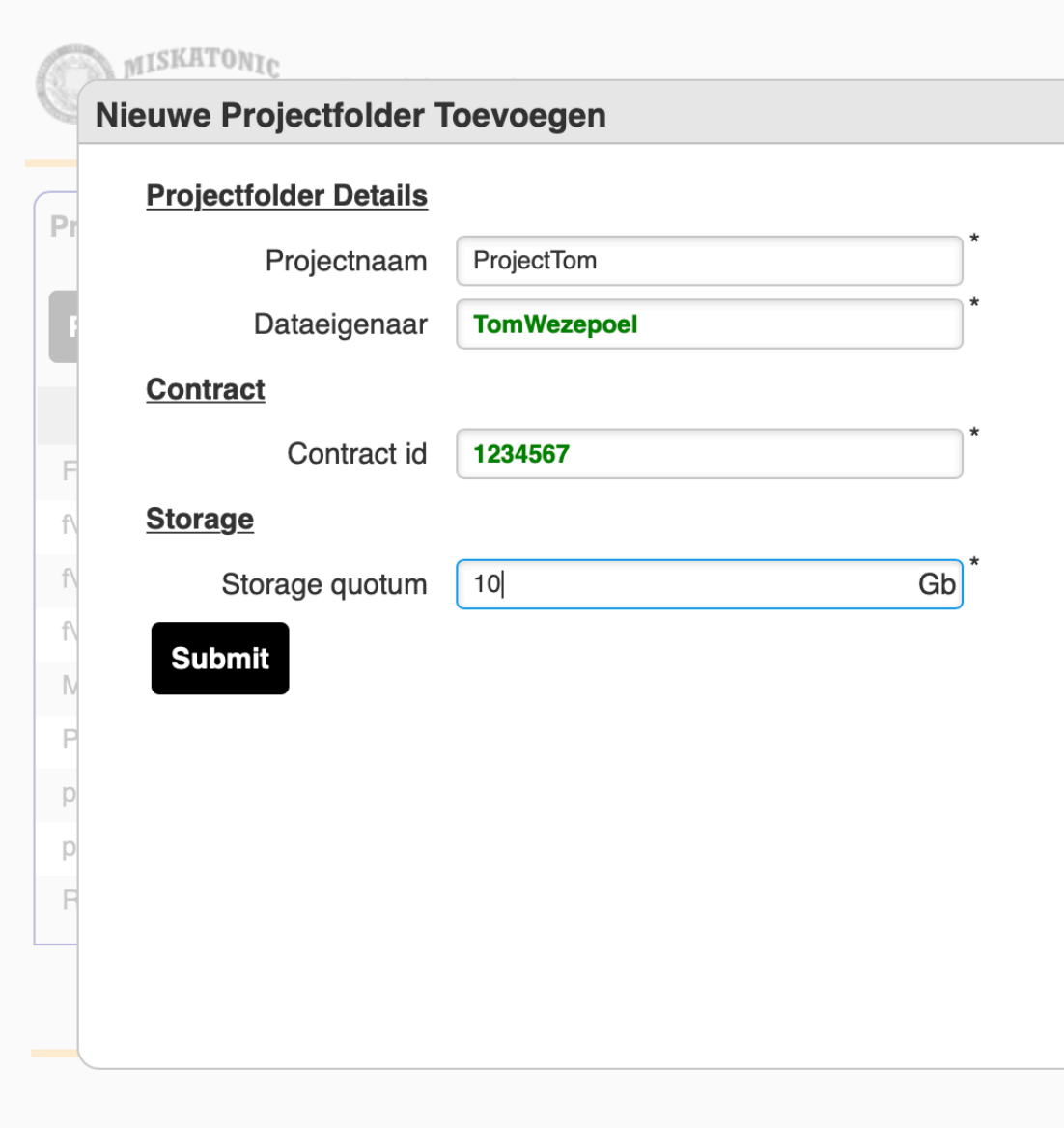


<https://wiki.surfnet.nl/display/RDRIVE/3.+Contracts>



Project folders

- Project folders can be added by the contract administrator
 - Folder is attached to one contract
- Project folder will have:
 - Unique Name
 - Data steward as owner
 - Storage quota
- Data steward can further share the project folder with the project team or individual members



The screenshot shows a web interface for adding a new project folder. At the top left is the Miskatonic logo. The main heading is "Nieuwe Projectfolder Toevoegen". Below this, there are three sections: "Projectfolder Details", "Contract", and "Storage". Each section contains a form field with a value and an asterisk indicating a required field. The "Projectfolder Details" section has "Projectnaam" (ProjectTom) and "Dataeigenaar" (TomWezepoel). The "Contract" section has "Contract id" (1234567). The "Storage" section has "Storage quotum" (10| Gb). A black "Submit" button is located below the storage field.

MISKATONIC

Nieuwe Projectfolder Toevoegen

Projectfolder Details

Projectnaam *

Dataeigenaar *

Contract

Contract id *

Storage

Storage quotum Gb *

Submit



Account details

- Account details
- Project membership
- Contract details
- Storage overview
- Service overview



<https://wiki.surfnet.nl/display/RDRIVE/1.+Users>

Account Details - Jan Janssen

Accountdetails

gebruikersnaam jan.janssen@organisatie.nl

naam

Save

Reset

loginmethode LDAP

email

Save

Reset

status ACTIVE

Blokkeer

Remove Account

Project Membership

gedeelt door	rol
Project X	member
Project Y	member

Contractdetails

contractnummer SURFsara

contract einddatum 2028-01-01 00:00:00

Storageoverzicht

gebruik 18.040GB

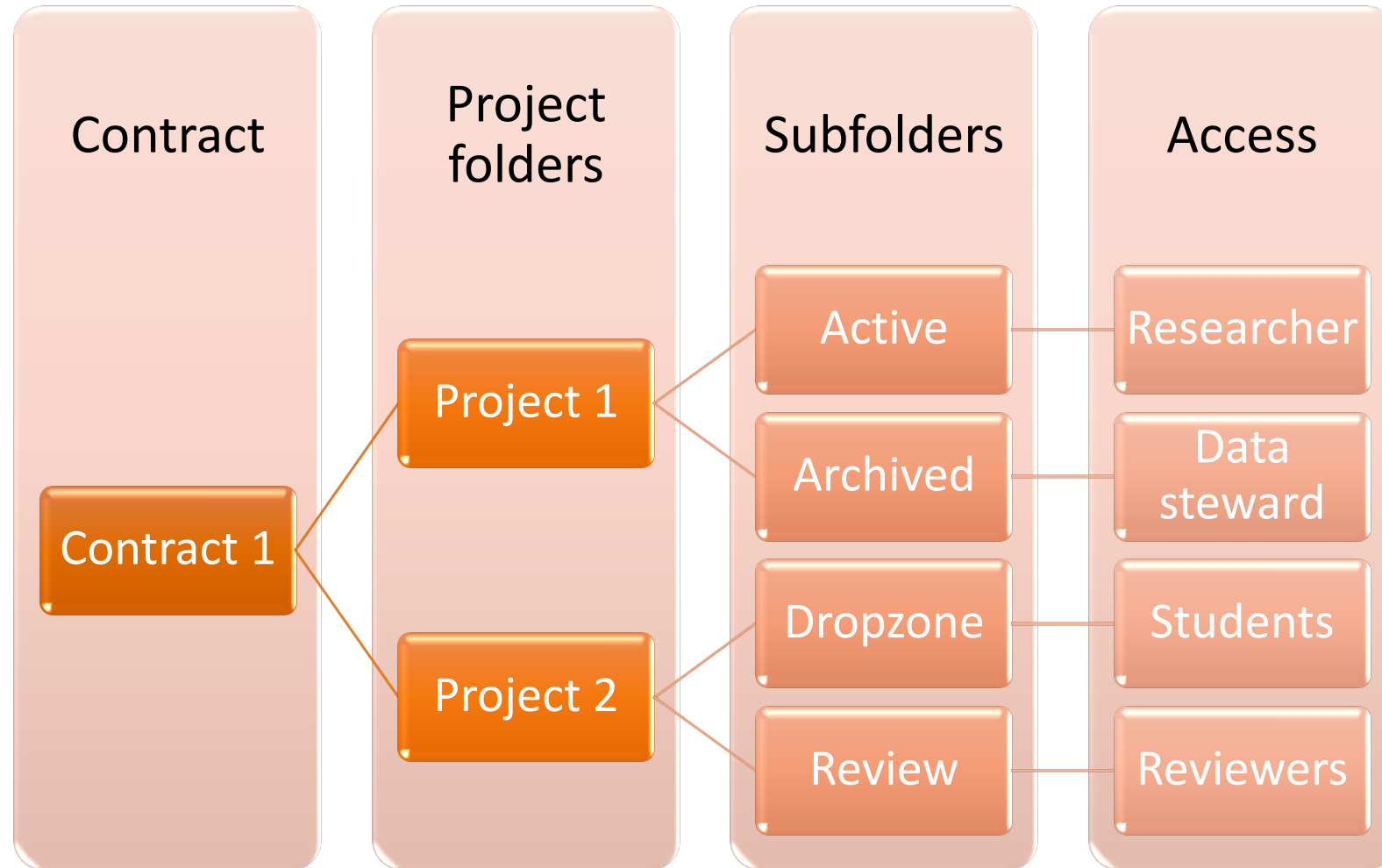
quotum 150000.000GB

Services Overview

service	description
Jupyter Hub Dashboard	Research Drive Dashboard

Edit

Contract, project folders and subfolders: example setup



Strategy for setting up project folders

- Users and groups:
 - Manage users in groups
 - Assign sharing permissions to groups
 - Limit sharing permissions as much as possible higher up in hierarchy
 - Only share and give permissions to persons who need it
- Project folders:
 - Single data steward per project folder
 - Properly name folders using codes, even for subfolders
 - Create groups per project folder
 - Store different data in separate subfolders

External storage

- Attach external or remote storage to RD
 - Can be done system-wide or personally
 - Through supported protocols
- You can:
 - Ingest and manage data in central place
 - Give others access to external data
 - Extend your storage
- Example services to connect:
 - Data Archive, Google Drive, SURFdrive, Object Store, your NAS

External Storage

Note: "smbclient" is not installed. Mounting of *SMB / CIFS*, *SMB / CIFS* using *OC*

Global credentials for external storage

Folder name	External storage	Authenticat
<input type="checkbox"/>	<input type="text" value="WebDAV"/>	<input type="text" value="WebDAV"/>

- Amazon S3
- Google Drive
- OpenStack Object Storage
- ownCloud
- SFTP
- WebDAV
- Windows Network Drive



To secure your data

- You can already implement client-side encryption with Cryptomator
 - Cryptomator - <https://youtu.be/XqFj7abvNqQ>
 - A secure vault with password encrypted and saved keys
 - When sharing data you need to provide the password to the person with whom you are sharing with
 - It's free
- Or choose for client side end-to-end encryption (E2EE)
 - Integrated into the Research Drive (web-based)
 - Create encrypted folders for groups of users
 - Software available for de-ryption (MS Windows only)
 - Extra-cost – per user



 <https://wiki.surfnet.nl/display/RDRIVE/How+to+encrypt+your+files>

Mounting Research Drive

- Research Drive can be mounted in any OS using tools that support WebDAV
- In Windows, Linux or MacOS mount it as network or remote storage*
- On Lisa or Cartesius use a tool like [rclone](#)
 - Required: WebDAV password generated in Research Drive web interface
 - Config: rclone config
 - Choose 'webdav' as storage type
 - Provide the remote WebDAV URL of your instance
 - Choose 'owncloud' as vendor
 - Name it 'RD' or something more specific
 - List files: `rclone ls RD:`
 - Copy files: `rclone copy RD:/file.txt file.txt`



HAPPY SHARING!

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Driving innovation together

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