



**UNIVERSITEIT
GENT**

DIRECTIE ICT

DICT STORAGE PLATFORMS APPLIED

11/10/2022

SSHT Datastorage Applied 2022-2023

PURPOSE OF THIS MEETING

Overview of DICT storage platforms

Show applied use cases, highlighting practical usage of platforms

- Data sharing: on sharepoint, on project share
- Data archiving: on project share
- Large data set: on project share, on HPC

DISCLAIMER

Every research case is unique – there is no solution that fits all

- Check best practices from data stewards:

<https://www.ugent.be/en/research/datamanagement/during-research/storage.htm>

Technical limitations

- Way things look will differ depending on your OS (Win/Mac/Linux)
- I am not (a shortcut to) the DICT helpdesk
- DICT helpdesk always knows best

<https://helpdesk.ugent.be>

DICT STORAGE PLATFORMS AT A GLANCE

	Office 365			Shares		HPC	
Name	OneDrive FB	SharePoint	Teams SharePoint	H:/	Project Share (act & bulk)	HOME/DATA/S CRATCH	VO_DATA/VO_ SCRATCH
Location	Cloud	UGent	Cloud	UGent	UGent	UGent	UGent
Size	2TB	5GB	See link	5GB	GB-TB range	25 GB	GB-TB range
Backup mechanism	Versioning	Versioning	Versioning	snapshots	snapshots	none	none
Sync to local	✓		✓				
Confidential	Encrypt	✓	Encrypt	✓	✓	✓	✓
Intended use	Personal	Sharing	Sharing	Personal	Sharing	Personal	Sharing
Sharing external users?	✓	✓	✓				✓
Suitable for TB datasets					✓		✓
Data in use	✓	✓	✓	✓	✓	✓	✓
Data at rest					✓		

DICT STORAGE PLATFORMS AT A GLANCE



DICT HELPDESK

In het Nederlands

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Storage

There are various options for data storage at Ghent University for students, staff members and researchers. You will find an overview on this page.

Office 365 services

- [OneDrive for Business](#)
- [SharePoint](#)
- [Microsoft Teams](#)

Exchanging files

- [Belnet Filesender](#)
- [Secure copy](#)
- [Statie](#)
- [Github](#)

Network drives ("Shares")

DICT offers two types of network drives:

- [Default network drives](#) for students and staff: personal disk space ('homedrive', H: drive or G:\home) and web space (W: drive or G:\WWW)
- [Shared network drives](#) ("ACL Shares") for staff members

High Performance Computing

- [Storage on the HPC infrastructure](#)

Research & data

Researchers can find more information about storing and backing up their data in [a comprehensive guide](#).



<https://helpdesk.ugent.be/netdisk/en/>

WHY USE DICT STORAGE PLATFORMS?

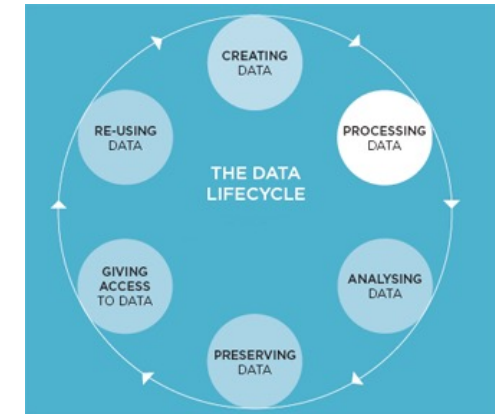
- Maintained by DICT, not you (you have better things to do)
 - Professional infrastructure
 - Redundant setup
 - Regular updates
 - Disaster recovery backups
 - Dedicated teams
- Scalable infrastructure
- Mostly free of charge (no such thing as a free lunch)

STORAGE & STRATEGY

- Datasets
 - have become huge
 - outlive their collector/creator
 - need to be easily accessible for everyone
- Storing data requires a strategy

➔ Research Data Management

- invest time and effort into an effective approach
- structure and share data
- have a life cycle in mind (archiving, depositing)



A data management plan helps YOU

DICT STORAGE PLATFORMS IN DETAIL

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Data at rest					✓		

OFFICE365

See <https://helpdesk.ugent.be/office365/en>

- Version control
- GB okay, TB not okay

- Personal → OneDrive for Business
 - <https://helpdesk.ugent.be/office365/en/onedrivefb.php>
 - (<> personal OneDrive)

- Shared → SharePoint
 - sharing, collaborating, joint editing documents
 - <https://helpdesk.ugent.be/office365/en/sharepoint.php>
 - <https://helpdesk.ugent.be/office365/teams.php>

OFFICE365 - APPLIED

Personal → OneDrive for Business

via browser <https://onedrive.ugent.be>

via client 

Shared → SharePoint

‘on premises’ Sharepoint

<https://sharepoint.ugent.be>

‘in cloud’ Sharepoint

ideally via Teams app

‘Files’ in 1-on-1 chat → OneDrive

‘Files’ in team → Sharepoint online

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SHARES – CENTRAL DISK SPACE

See <https://helpdesk.ugent.be/netdisk/en/>

- General purpose centralized shared storage
- Personal
 - personal disk space: **H:-drive** (quota = 5 GB)
 - personal web space: **W:-drive** (quota = 1 GB)
- Shared
 - shared network drives: **S:-drive** (on demand, GB – TB range)
intended for project-related storage of data
e.g. ‘vakgroep’-shares (within department)

SHARES – APPLIED

- Mount share on your OS
 - Win: \\files.ugent.be\loginname
 - OSX/Linux: smb://UGENT\loginname@files.ugent.be/loginname
- Work directly in shared folder
- (Work with synchronised copy of local data → third party software)
- Active data versus Archive on shares: make separate folders
 - <Active data>
 - <Archive> → cold data automatically on cheaper storage
 - Adjust permissions!
 - Maximal sharing for active data
 - Limited for archive

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HPC STORAGE

See <https://www.ugent.be/hpc/en>

- Dedicated storage for scientific computing
- Authentication via VSC id (easily requested with UGent credentials)
- Personal
 - `$VSC_HOME` (quota = 3 GB)
 - `$VSC_DATA` (quota = 25 GB)
 - `$VSC_SCRATCH` (quota = 25 GB)
- Shared – for virtual organisations
 - `$VSC_DATA_VO` (quota = 250 GB or more)
 - `$VSC_SCRATCH_VO` (quota = 250 GB or more)

HPC STORAGE

- Request vsc-id with your UGent credentials

<https://www.ugent.be/hpc/en/access>

- Terminal access

Win: Putty session

OSX/Linux: > ssh vscXXXXX@login.hpc.ugent.be

- Webportal access (NEW)

<https://login.hpc.ugent.be>

GETTING HELP

- Research Data Management (Data Stewards)
<https://www.ugent.be/en/research/datamanagement>
rdm.support@ugent.be
- DICT helpdesk
<https://helpdesk.ugent.be>
<https://helpdesk.ugent.be/helpme/>

You can always give us compliments 😊

But first and foremost tell us if something is not working for you.

Only then can we help and improve our services (if possible).

Dr. Ewald Pauwels

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www.ugent.be/hpc