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DICT STORAGE PLATFORMS APPLIED

09/11/2021

SSHT Datastorage Applied 2021-2022

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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

Possibility for one-on-one discussion:

- At end of first part, leave a message in chat

- I'll contact you via MS Teams (time permitting 11h-12h or this afternoon)

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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

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DICT STORAGE PLATFORMS AT A GLANCE

Name	Office 365			Shares		HPC	
	OneDrive FB	SharePoint	Teams SharePoint	H:/	Project Share (acl & bulk)	HOME/DATA/SCRATCH	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					✓		

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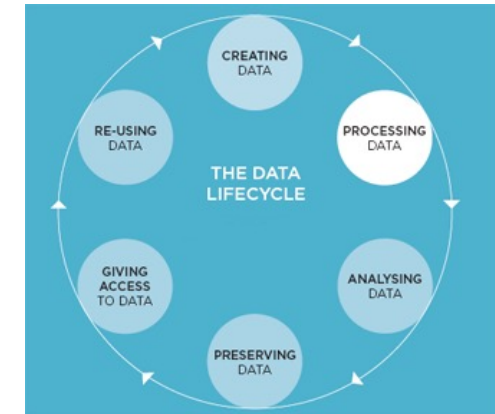GENT

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)

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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

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DICT STORAGE PLATFORMS IN DETAIL

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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

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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)

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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)

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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

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GETTING HELP

- Research Data Management (Data Stewards)

    https://www.ugent.be/en/research/datamanagement

    rdm.support@ugent.be

- DICT helpdesk

    https://helpdesk.ugent.be

    helpdesk@ugent.be

    You can always give us compliments ☺

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

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

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www.ugent.be/hpc

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