Research data solutions

DATASUPPORT

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Storing

Your home folder

- Capacity of 50 GB
- Windows, Mac, Linux
- For personal use, not sharing
- Backups taken every hour

Group folder

- Data sharing within group
- From 10 GB to 20 TB
- Group owner regulates access control
- For UH users only
- Price 0,019 € / GB / Month
- Backups taken every hour

More storing

CSC IDA
- Up to 100 TB of space
- For stable data sets
- Free of charge, user must apply for space

Datacloud (object storage)
- For research groups
- Ceph cluster with S3 interface
- Datacloud GUI (Nextcloud)
- Very large capacity possible (Petabytes)
- No backup, but version control

Other storage services
- Cloud storage (OneDrive for Business, EUDAT B2DROP)
- Version control (version.helsinki.fi – gitlab)
- Collaboration (MS Teams)

Check out the table of different data storing options here!

Servers

Virtual server

- Windows or Linux (RHEL, Ubuntu)
- Recommended for applications
- Up to 10 TB storage space
- Price 0,11€/GB/year (slow) or 0,38€/GB/year (fast)
- Can hold sensitive data

ePouta and cPouta (CSC)
- Virtual servers for various roles (computing, data management etc)
- Higher performance and more storage than in UH servers
- ePouta evaluated for sensitive data
- Provided by CSC

Dedicated physical server

- For high performace and large storage capacity needs
- Can hold sensitive data
- Expensive
- Needs maintenance
- Lifecycle 5 years

Computing

Turso

- HPC infrastructure of the university
- Combination of Kale, Ukko2, Vorna etc. clusters
- For batch and interactive use
- >7000 CPU cores and 8+4 GPU's
- More info: it4science@helsinki.fi

Mahti & Puhti

- HPC –services (high performance computing) by CSC
- User must apply for capacity

Sensitive data

Where to store sensitive data?

- Umpio (VDI and storage cluster)
- Home or Group Folder (pseudonymised or encrypted data)
- UH virtual server
- CSC virtual server (ePouta)
- Dedicated physical server

TIP: Umpio mainly for storage, servers for applications!

Practical tips

- Don't hesitate to ask for assistance!
- GDPR regulates every data which has people in it, not just sensitive material
- Collect only the data you need
- Take good care of the access control - who needs access and how long?
- Encrypt the data if possible

Sensitive data

Umpio

- For sensitive data

- Up to 10 TB

- Like group folder, but only available from secure VDI environment

- Two-phase authentication

- Mainly for storage use, some software also available

- Backups taken every hour

Encryption and deleting

Encrypting the data

- Several options available for different needs:
  - 7-Zip
  - Cryptomator
  - Securemail
  - S/MIME, GNUPG
  - MS Word & Excel

- UH laptops and desktops are encrypted by default (Win10)

Deleting the data

- User action is not needed when removing data from UH services (home and group folders, servers etc.)

- User must take care to remove the data from personally owned devices (USB-drives, disks, phones, etc.)

- IT support will handle data erasure from any University owned devices

- Helpdesk portal has instructions for erasure of data

- Contact IT support if you need any help in removing sensitive or personal data

Contact information

Services produced by University of Helsinki
- Datasupport web page: https://datasupport.helsinki.fi/
- Helpdesk: https://helpdesk.it.helsinki.fi
- Email datasupport@helsinki.fi

CSC services:
- CSC customer portal: https://sui.csc.fi
- Email: servicedesk@csc.fi

Links

Instructions:

- Making a research project understandable - Guide for data documentation: https://doi.org/10.5281/zenodo.1914401
- Instructions on how to get a group folder at UH: https://helpdesk.it.helsinki.fi/en/instructions/saving-and-sharing/group-storage-space/group-storage-space
- Instructions for UH OneDrive: https://helpdesk.it.helsinki.fi/en/instructions/collaboration-and-publication/office-365/office-365-onedrive-business
- Information security and terms of use: https://www.helsinki.fi/en/it/information-security-and-terms-of-use
- IT Center's service price list: https://flamma.helsinki.fi/en/group/it-ja-puhelin/it-centers-service-price-list

Service catalogs:

- IT services at the university: https://www.helsinki.fi/en/it/it-services-at-the-university
- CSC's service page: https://www.csc.fi/services
- Cloud guide: https://wiki.eduuni.fi/display/cloudguide/Cloud+Guide
- EUDAT Services: https://www.eudat.eu/catalogue

Thank you!