STORAGE AND COMPUTING SERVICES

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FIRST THINGS FIRST...

• Create a data management process - AND FOLLOW IT!
• Helps you to manage your project
• Metadata of the project is generated automatically
• Archiving and sharing becomes easier
DIFFERENT SOLUTIONS TO VARYING NEEDS

• Disk space for:
  • Personal needs
  • Groups
  • Sharing
  • Cloud based services
  • Large data sets
  • Archiving
  • Long Term Storage
  • International options
    • Eudat
PERSONAL DISK SPACE

• Students do have their onedrive-account
• Staff has in house solution
  • Default quota is 5 GB, but can be increased
    • Expansion may cost
• This drive is strictly personal, do not share
GROUP DISK SPACE

- When organisational unit joins University’s AD that group will have a shared disk space.
- There can be several drives, depending your role
- Normally you can see only S:-drive
CLOUD BASED SPACE

• University offers MS onedrive cloud drive to all staff members
• Default quota 1 TB
• Slow, no backups, not encrypted, location not known -> NOT for sensitive data.
• Very accessible
LARGE DATA SETS

• For large data sets or shared projects it is possible to buy disk space from IT-administration
  • Costs 150€/TB/year, including backup
  • Quota determined by user

• CSC offers Allas-object storage
  • Uses S3- or SWIFT-protocols
  • Default quota 10TB, expandable
  • This is not active disk space, but a storage where you can save and retrieve data for analyses.
  • Free until further noticed
  • Easy to share and import, no restrictions on data format
ARCHIVING

• University of Oulu do NOT have archiving services for research

• CSC has IDA-service for data archiving and sharing

• There are other services as well, depending on your needs
LONG TERM STORAGE

• Long term storage is meant to preserve data decades or centuries
• You have to make agreement with university to use this option
  • Legal rights must be transferred to the university
SENSITIVE DATA

• Usually research group has to make sure that data is stored and transferred by secure manner.
  • Legal restrictions

• RedCap
  • Service for saving and distributing sensitive data

• ePouta by CSC
  • Enables the routing and processing of the data but the safe storage is on customer’s responsibility
INTERNATIONAL OPTIONS

• Eudat

• Usually for large international projects
COMPUTING SERVICES

• Similar to the storage: There are several options for varying needs

• Small problems or prototyping and testing: PC

• Larger tasks:
  - Univ. Oulu:
    • Centralized computing servers
      • 72-96 cores, may contain GPU, depending on server (Kataja1, ….)
      • Computing cluster (fcgi2) in Kajaani
  - CSC
    • PaaS-services cPouta and ePouta
    • Puhti and Mahti supercomputers
    • Allas object storage
  - Commercial services
    • MS-Azure and Amazon web services
    • Large selection of services
    • Customer pays the costs, they may be expensive.