LIÈGE université
GIGA

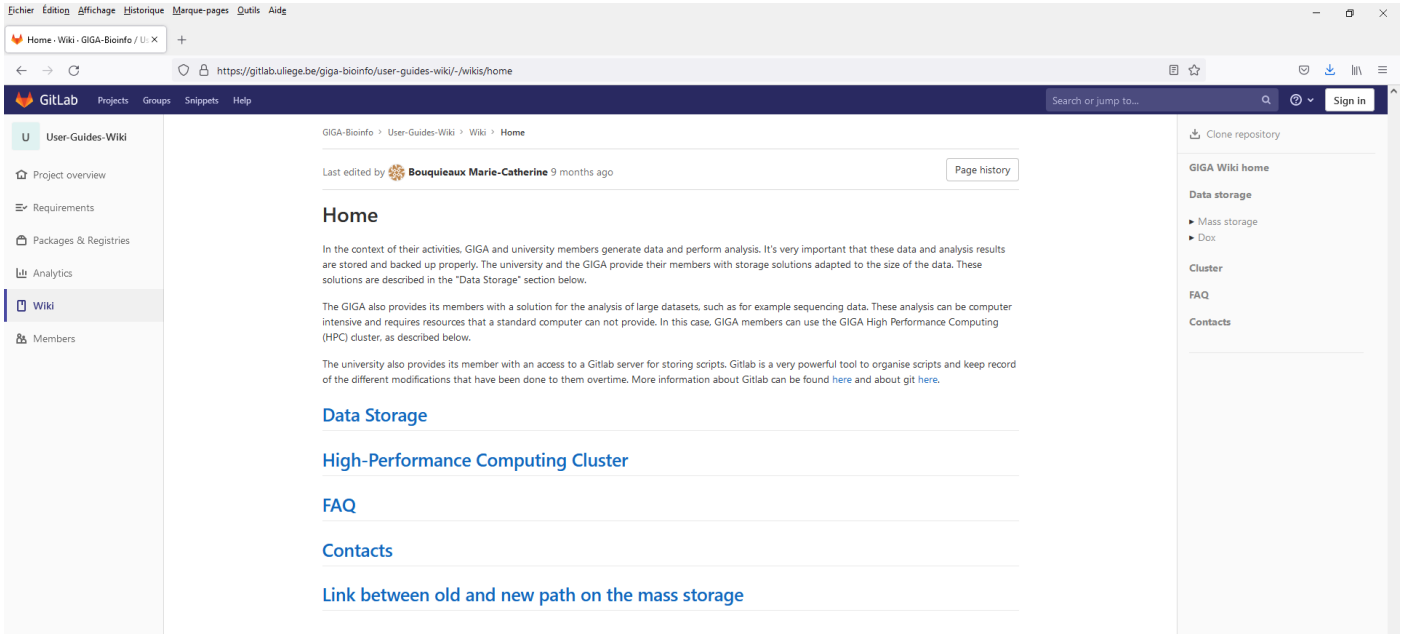
GIGA mass storage

GIGA Doctorate School

- Baseline information
- Space available for user
- Backup/Archive

Baseline information

Wiki about GIGA mass storage:
https://gitlab.uliege.be/giga-bioinfo/user-guides-wiki/wikis/home



Baseline information

Professional infrastructure for data storage

Baseline information

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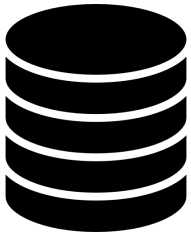
Professional infrastructure for data storage

Huge Capacity

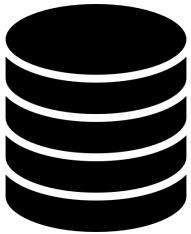


Secure

Baseline information

Professional infrastructure for data storage

Huge Capacity



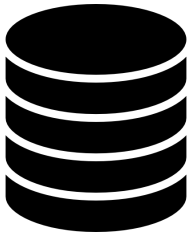
Secure

Reliable

Baseline information

Professional infrastructure for data storage

Huge Capacity

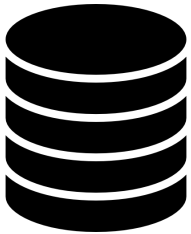


2.2 PetaBytes

Baseline information

Professional infrastructure for data storage

Huge Capacity



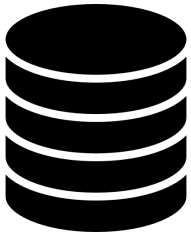
2.2 PetaBytes

Size	Songs
5MB	1
500GB	100,000
2.2PB	440,000,000

Baseline information

Professional infrastructure for data storage

Huge Capacity



2.2 PetaBytes

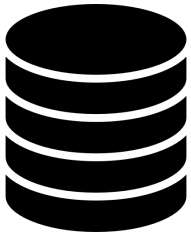
Size	Songs
5MB	1
500GB	100,000
2.2PB	440,000,000

≥2511years

Baseline information

Professional infrastructure for data storage

Huge Capacity



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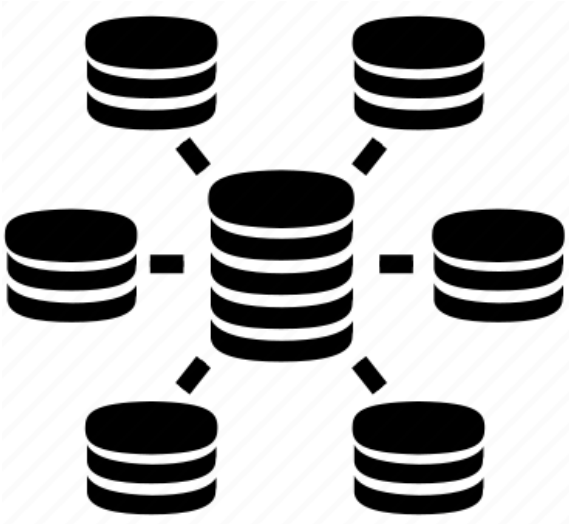
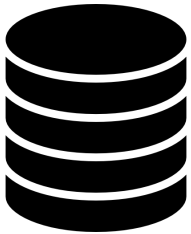


Baseline information

Professional infrastructure for data storage

Huge Capacity



Secure

Protected and restricted access

Baseline information

Protected and restricted access

Protected	• Inside university network • Firewall
Restricted	• Need both password AND authorisation • Each folder can have restricted access

Baseline information

Limited and protected access

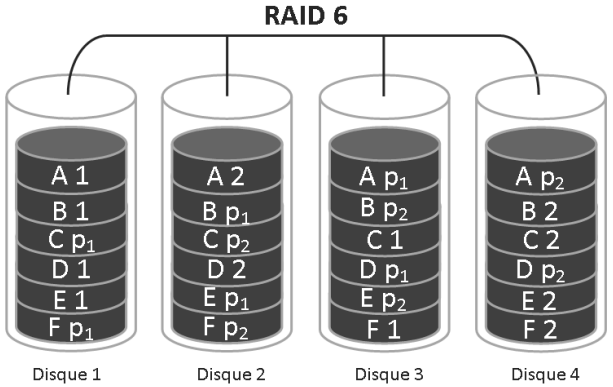
- Secure: Rules to store human/personal data
  - ✓ GDPR compliance

More information on the General Data Protection Regulation (GDPR) on Monday the 24th October

Baseline information

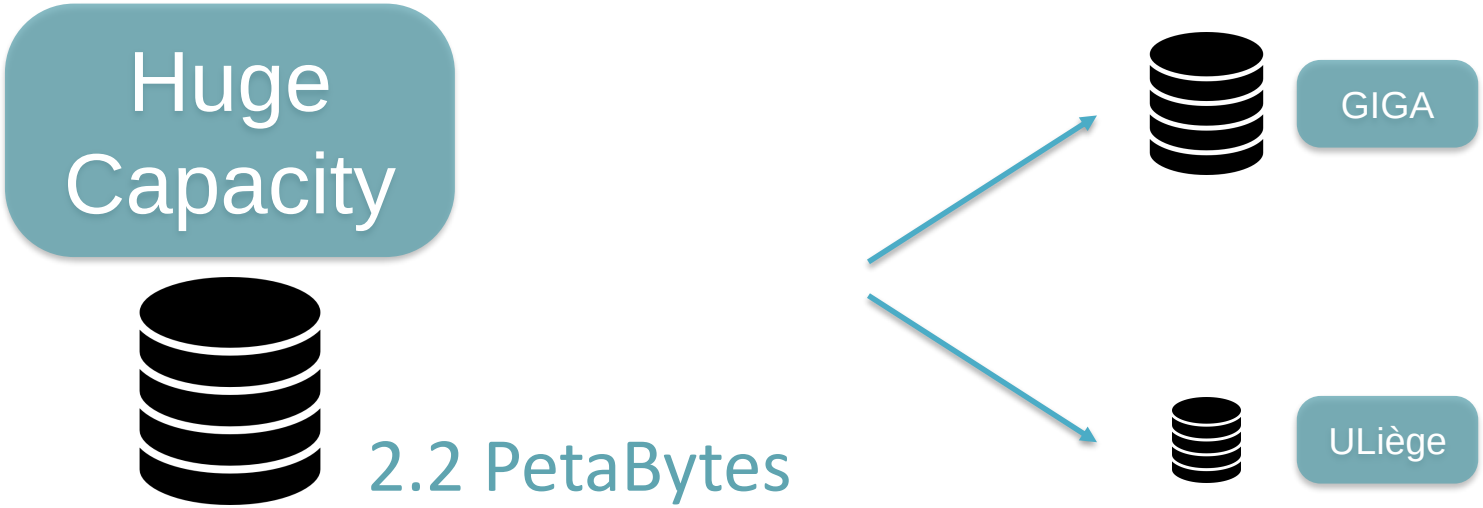
Reliable

- Professional disk (material and writing/RAID)
- Backed up on a regular basis



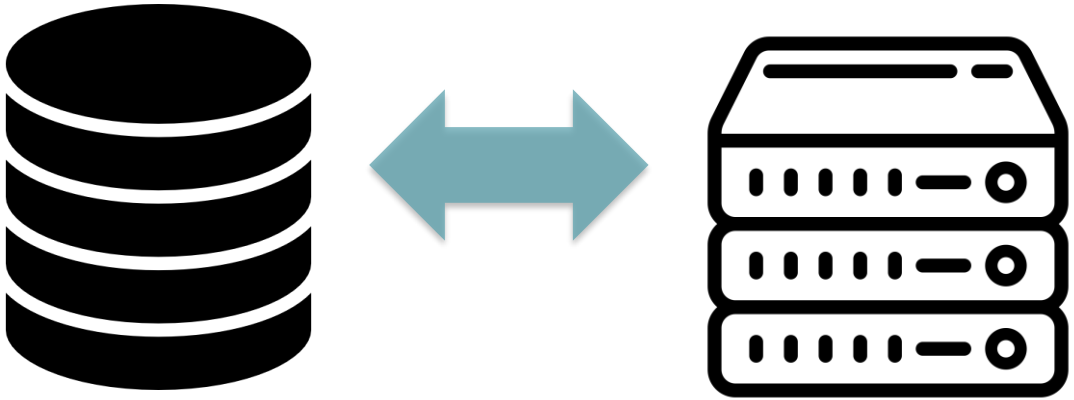
Baseline information

Professional infrastructure for data storage



Baseline information

- Available to all GIGA members
- Linked to the GIGA cluster



(More information on Monday 17th October)

Space available

- 3 space locations available:
  - HOME
  - Laboratory shared space
  - Resources

Space available

- 3 space locations available:
  - HOME

    Entry point of the mass storage

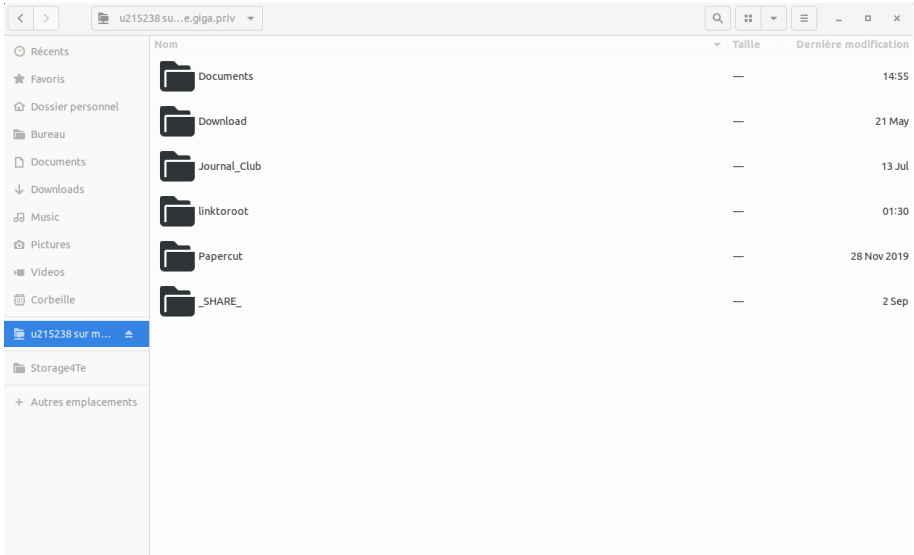
Space available

- 3 space locations available:
  - HOME

    Entry point of the mass storage

    2 methods:
    - SAMBA (file browser)
    - SSH (terminal)

- 2 methods:



SAMBA

```
u215238@nasgw2:~
uliege@med81205:~$ ssh u215238@massstorage.giga.priv
u215238@massstorage.giga.priv's password:
Last login: Tue Sep 28 14:44:39 2021 from med81244.user.uliege.priv
Welcome to

      /\/\  __ _ ___ ___  / _\ |_ ___  _ __ __ _  __ _  ___
     /    \ / _` / __| __| \ \| __/ _ \| '__/ _` |/ _` |/ _ \
    / /\/\ \ (_| \__ \__ \ _\ \ || (_) | | | (_| | (_| |  __/
    \/    \/\__,_|___/___/ \__/\__\___/|_|  \__,_|\__, |\___|
                                                  |___/

            You are logged in on NASGW2
            In case of problem, contact the Helpdesk
               Ticket    : https://sam.segi.uliege.be/
               Phone     : 04/366.49.99
               E-mail    : helpdesk@segi.ulg.ac.be

    --> For more information about the GIGA cluster and mass storage:
        https://gitlab.uliege.be/giga-bioinfo/user-guides-wiki/-/wikis/cluster/cluster-home
/usr/bin/id: impossible de trouver le nom pour le GID 258696
-bash: module : commande introuvable
-bash: module : commande introuvable
[u215238@nasgw2 ~]$ ll
total 4.0K
drwxrws--- 6 u215238 258696 4.1K Sep 30 11:35 Documents
drwxrws--- 2 u215238 258696    0 May 21 08:39 Download
drwxrws--- 5 u215238 258696    0 Jul 13 16:54 Journal_Club
lrwxrwxrwx 1 u215238 258696    1 Jul 12 11:02 linktoroot -> /
drwxrws--- 3 u215238 258696    0 Nov 28  2019 Papercut
drwxrws--- 2 u215238_258696    0 Sep  2 17:16 _SHARE_
```

SSH

Space available

- 3 available space locations:
  - HOME

    Entry point of the mass storage

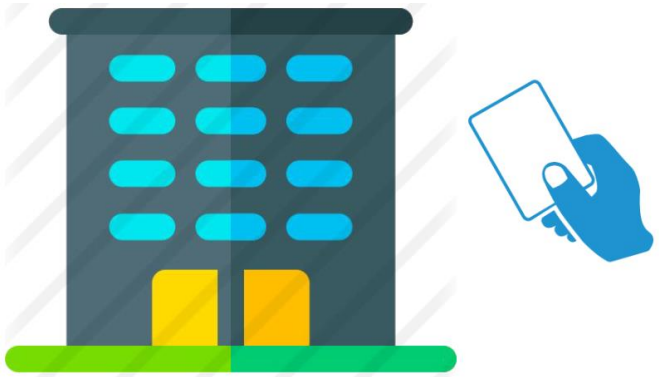
    Limited to 100Gb

    Only access to you

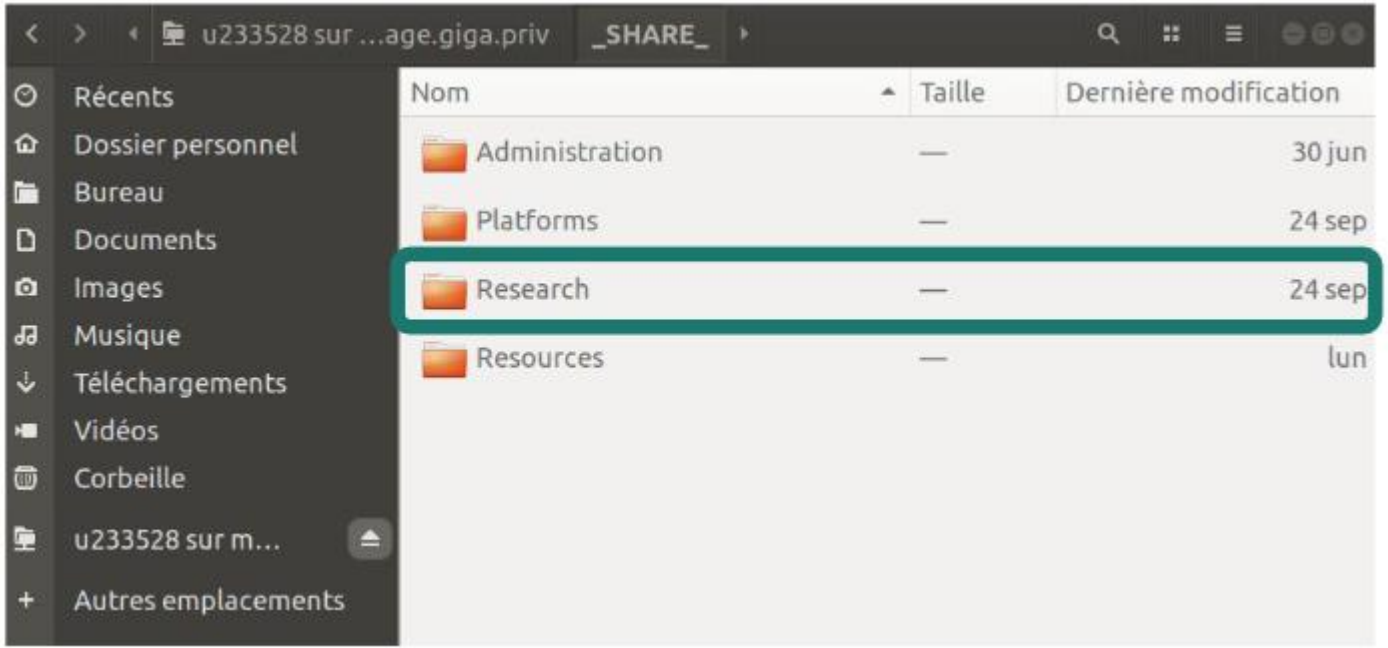
Space available

- 3 available space locations:
  - HOME
  - Laboratory shared space

    Specific laboratory members access



Laboratory shared space

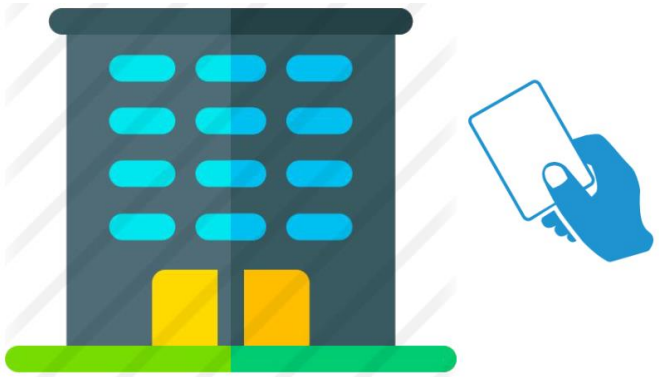


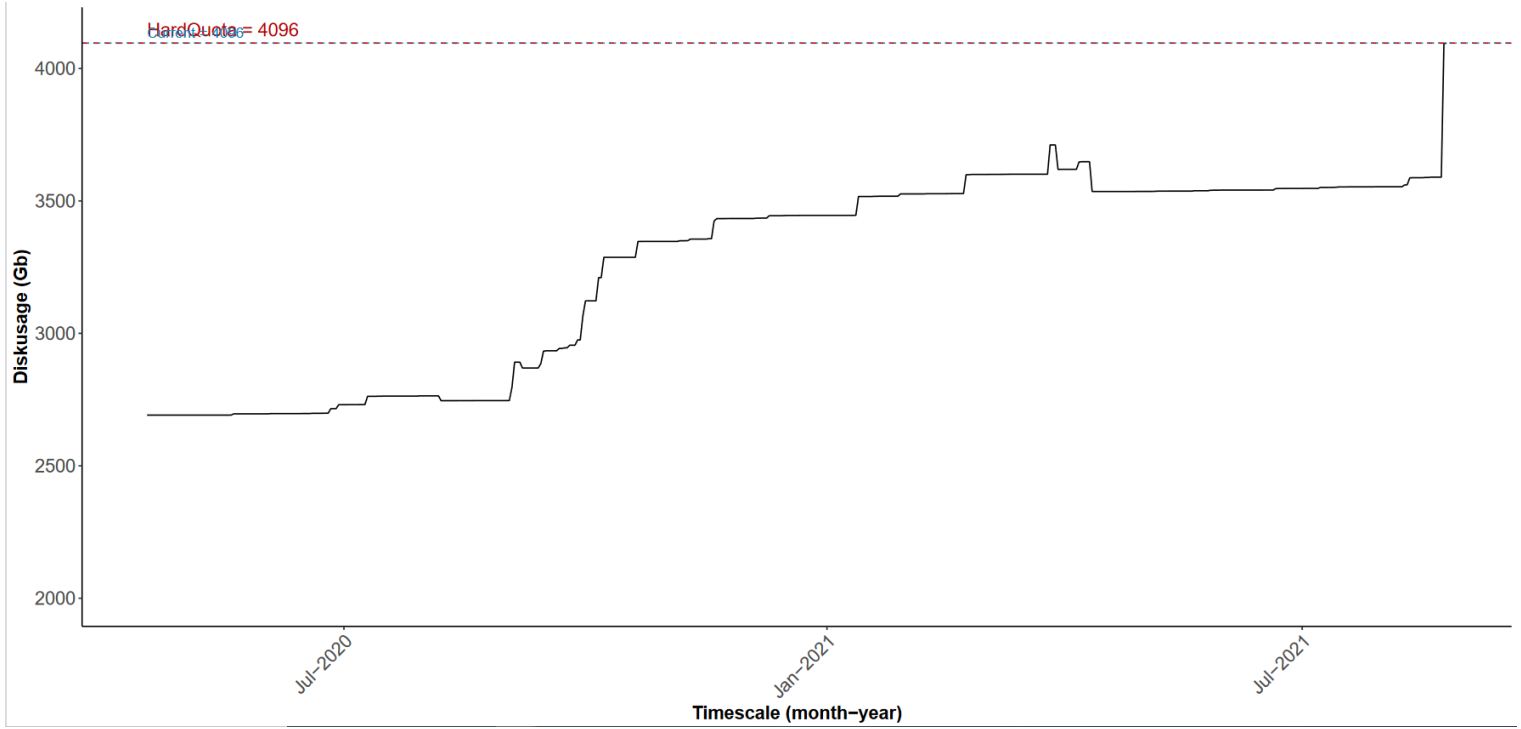
Space available

- 3 available space locations:
  - HOME
  - Laboratory shared space

    Specific laboratory members access

    Limited space depending on project/analysis



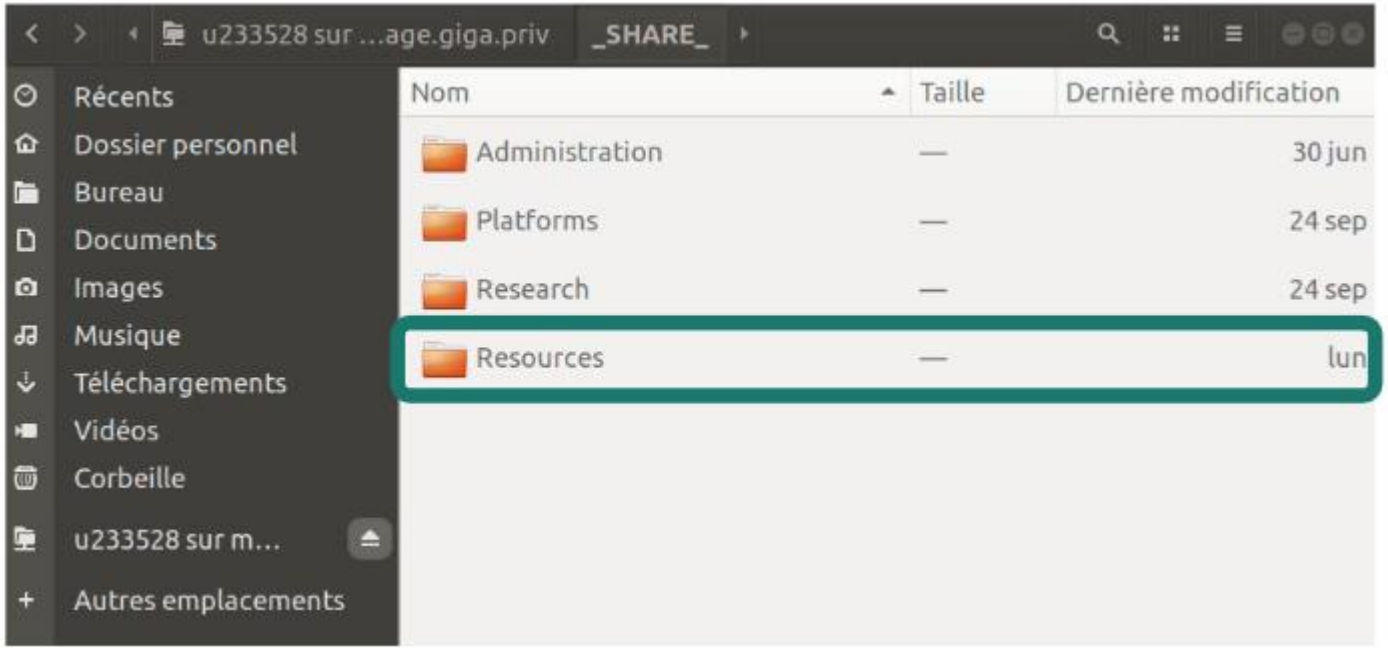

HardQuota = 4096
4000
3500
3000
2500
2000
Diskusage (Gb)
Jul−2020
Jan−2021
Jul−2021
Timescale (month−year)

Space available

- 3 space locations available:
  - HOME
  - Laboratory shared space
  - Resources

    Contains reference tools such as sequence of the human genome

Resources


u233528 sur ...age.giga.priv
SHARE
Récents
Dossier personnel
Bureau
Documents
Images
Musique
Téléchargements
Vidéos
Corbeille
u233528 sur m...
Autres emplacements
Nom
Taille
Dernière modification
Administration
—
30 jun
Platforms
—
24 sep
Research
—
24 sep
Resources
—
lun

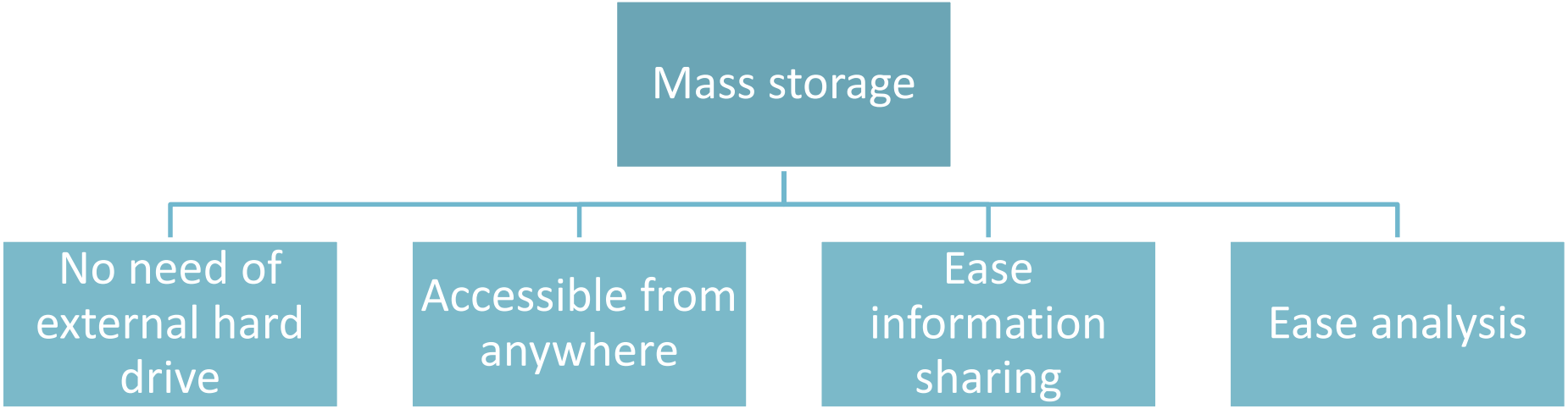
For the rest of Uliège community

- Still possible to have a laboratory shared space but no personal HOME.
  - Contact your UDI.

- Not link to GIGA cluster
- Permissions management on a case-by-case basis

Why this type of structure?

Why this type of structure?



Backup/Archiving

- Backup:
  - Copies of current data/files
    - After 2 hours of inactivity

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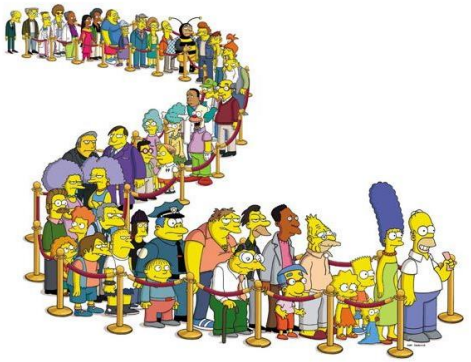

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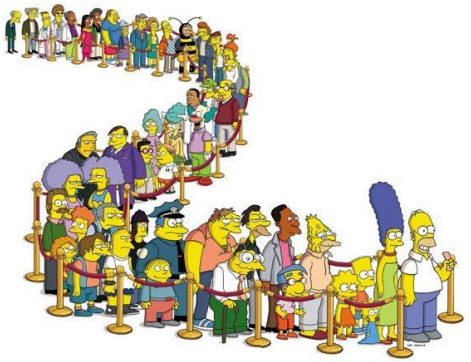

➔ Allow retrieval of folder version (max 25) if lost or corrupted data

Backup/Archiving

- Backup:
  - Copies of current data/files
  - 3 copies on different sites

➔ Location disaster protected

Backup/Archiving

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  - Copies of current data/files
  - 3 copies on different sites

➔ Location disaster protected

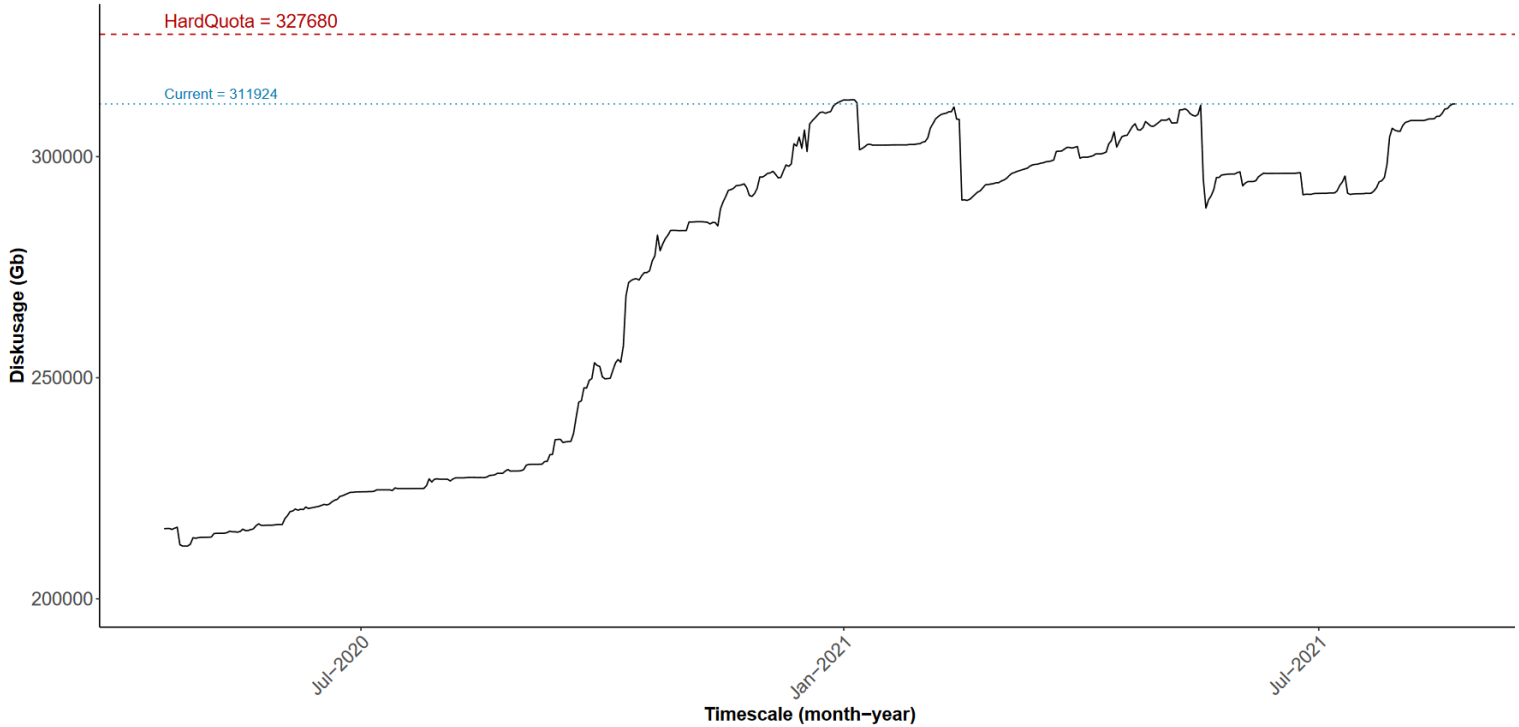
Backup/Archiving

- Backup:
- Archiving:

Backup/Archiving

- Backup:
- Archiving:
  - ➢ Data/files storage secured in time

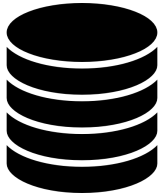
  ➔ Allows space maintenance on disk


HardQuota = 327680
Current = 311924
300000
250000
200000
Diskusage (Gb)
Jul−2020
Jan−2021
Jul−2021
Timescale (month−year)

Take home message

Mass storage

- Huge Capacity
- Secure
- Reliable
- Linked to Cluster



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GIGA

More information

Wiki about GIGA mass storage:

https://gitlab.uliege.be/giga-bioinfo/user-guides-wiki/wikis/home

Platform website:

https://www.gigabioinformatics.uliege.be/cms/c_8464757/en/gigabioinformatics

Contact

Bioinformatics Team

bioinfo.giga@uliege.be