

GIGA mass storage

GIGA Doctorate School

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Outline

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



Baseline information

Professional infrastructure for data storage:

Huge
Capacity



Secure



Reliable





Baseline information



Professional infrastructure for data storage:

❖ Large capacity:

1.5 PetaBytes



Baseline information



Professional infrastructure for data storage:

❖ Large capacity:

1.5 PetaBytes

Size	Songs
5MB	1
500GB	100,000
1.5 PB	300,000,000



Baseline information



Professional infrastructure for data storage:

❖ Secure:

Access limited and protected



Baseline information



Protected

- Inside university network
- Firewall

Limited

- Need both password and autorisation
- Each folder can have restricted access



Baseline information



Professional infrastructure for data storage:

❖ Secure: Rules to store human/personal data

=> Have all certification required to store human data

More information on the General Data Protection Regulation (GDPR) on Monday the 26th October



Baseline information



Professional infrastructure for data storage:

❖ Reliable:

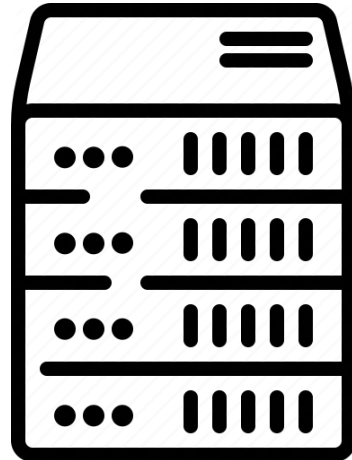
Professional disk (material and writing/RAID)

Backed up regularly



Baseline information

- ❖ Available to all GIGA members
- ❖ Link to the Cluster of the GIGA



(More information on
Monday 19th October)



Space available

3 spaces available:

- ❖ Home
- ❖ Laboratory shared space
- ❖ Resources



Space available

❖ Home:

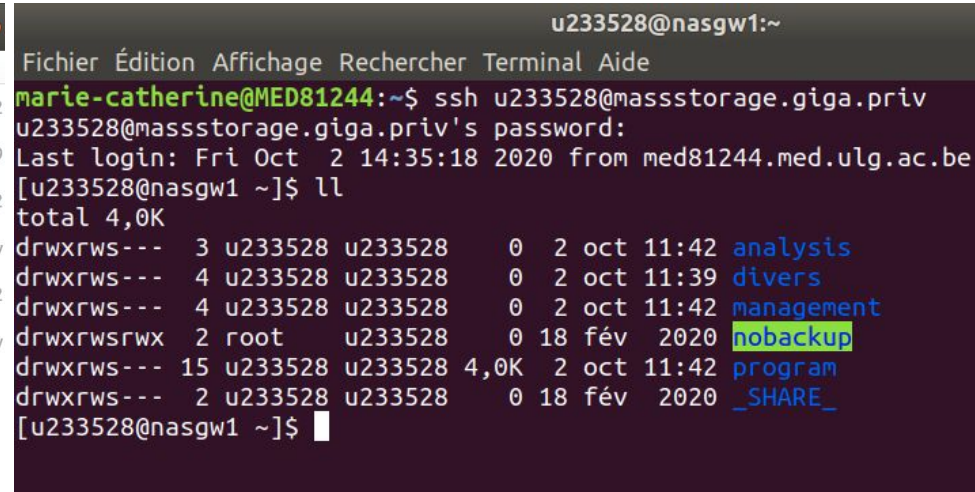
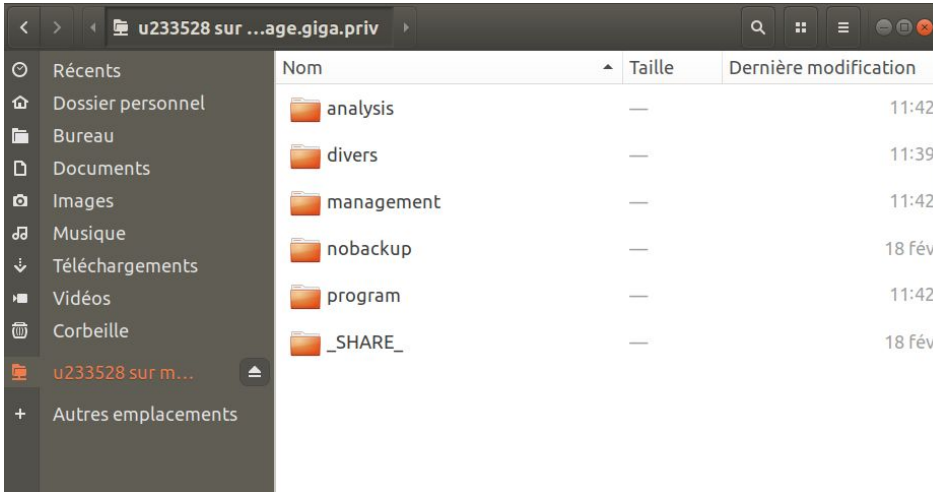
- Entry point of the mass storage

2 methods of connection:

- SAMBA (file browser)
- SSH (terminal)



Connection to the mass storage



SAMBA (file browser)

SSH (terminal)



Space available

❖ Home:

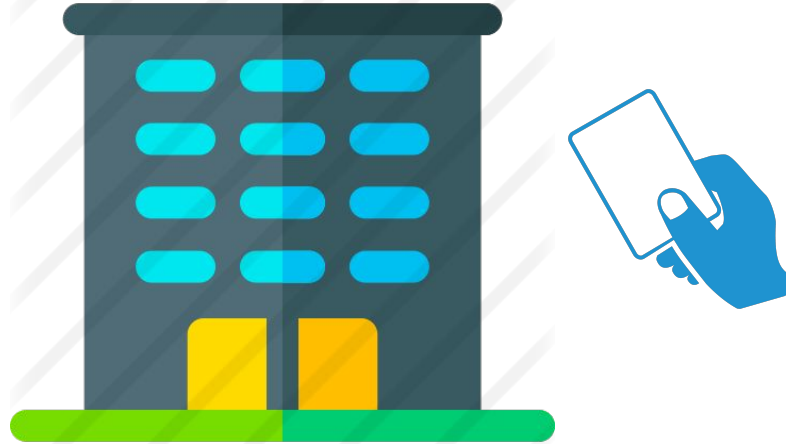
- Entry point of the mass storage
- Limited to 100Gb, only accessible to you





Space available

- ❖ **Laboratory shared space:**
 - Space depends on the projects/analysis, accessible to all members of the laboratory





Laboratory shared space

The screenshot shows a file explorer window with the address bar displaying "u233528 sur ...age.giga.priv" and the subdirectory "_SHARE_". The left sidebar lists various locations, including "Récents", "Dossier personnel", "Bureau", "Documents", "Images", "Musique", "Téléchargements", "Vidéos", "Corbeille", and "u233528 sur m...". The main pane displays a table of folders:

Nom	Taille	Dernière modification
Administration	—	30 jun
Platforms	—	24 sep
Research	—	24 sep
Resources	—	lun

The "Research" folder is highlighted with a green border.



Space available

❖ **Resources:**

- Contains reference tools such as the sequence of the human genome





Resources

The screenshot shows a Windows File Explorer window with the address bar displaying 'u233528 sur ...age.giga.priv' and the current view set to '_SHARE_'. The left sidebar shows the navigation pane with 'u233528 sur m...' selected. The main pane displays a table of folders:

Nom	Taille	Dernière modification
Administration	—	30 jun
Platforms	—	24 sep
Research	—	24 sep
Resources	—	lun

The 'Resources' folder is highlighted with a green border.



Why using this type of infrastructure?



Why using this type of infrastructure?

Mass storage

```
graph TD; A[Mass storage] --- B[No need of external hard drive]; A --- C[Accessible from everywhere]; A --- D[Ease information sharing]; A --- E[Ease analyses];
```

No need of
external
hard drive

Accessible
from
everywhere

Ease
information
sharing

Ease
analyses



Backup/archiving

- Backup
- Archiving



Backup/archiving

- Backup
 - copy of current data/files
 - after 2 hours of inactivity

=> allow retrieval of older version if data lost/corrupted



Backup/archiving

- Backup
 - copies present in different location:



=> Even if destruction of one of the location, still have copy of the data



Backup/archiving

- Archiving
 - storage of data/files for a long period of time

=> allow to gain place on the disk



Take home message

Mass storage

Huge
Capacity



Secure



Reliable



Linked to
Cluster





More information

Wiki on the GIGA mass storage:

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

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