

Storage & Data Transfer Service

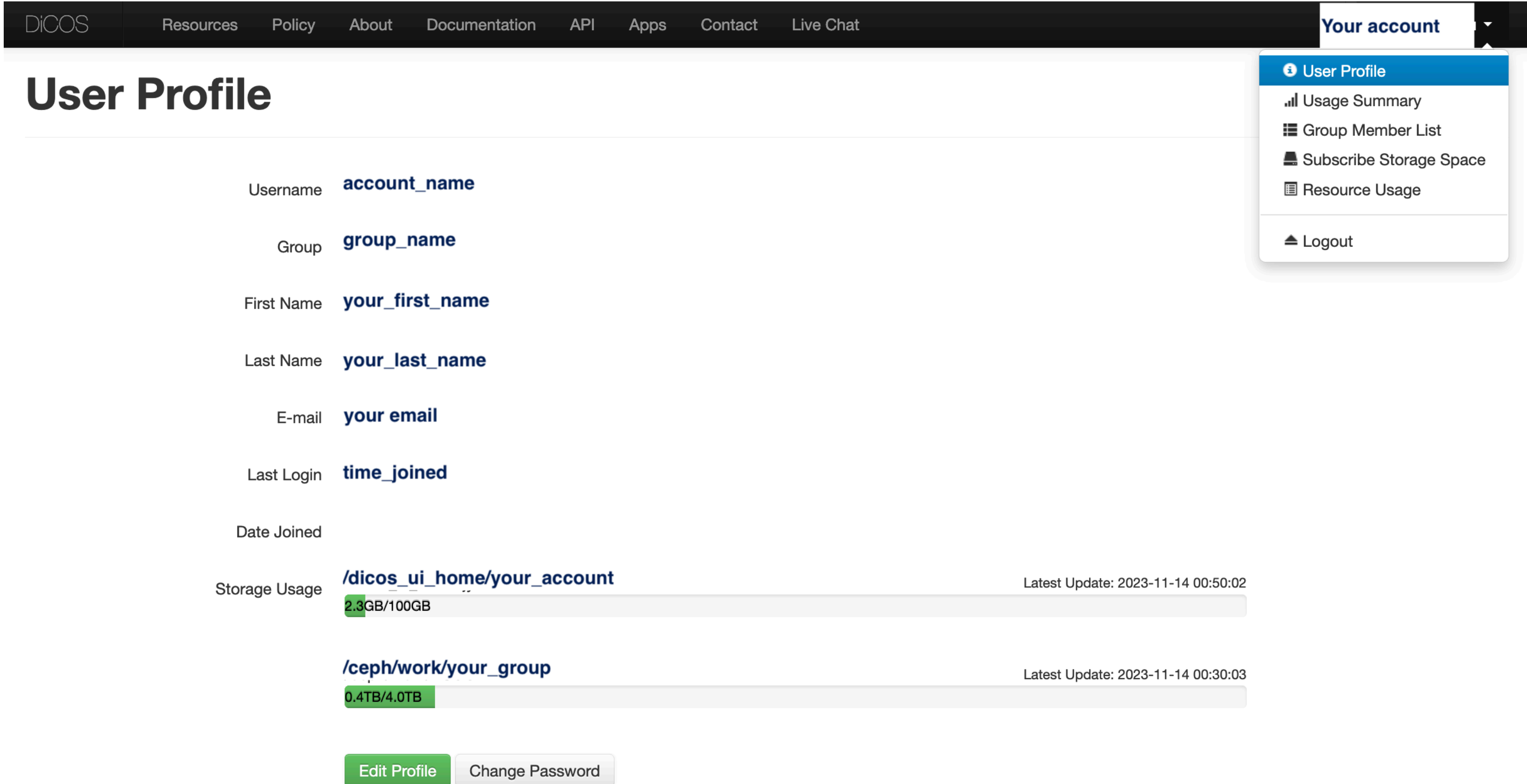
User Training Workshop 2024

Storage Space

- Home Space
 - /dicos_ui_home/{user_account}
- Group Working Space
 - /ceph/work/{group}
 - 3TB free for each group
- Group Preservation & Backup Space (Will be available in the future)
- Please back up to secure your data in these spaces

Storage Space

- Check Your Usage <https://dicos.grid.sinica.edu.tw/profile/info>

- 

The screenshot shows the DICOS User Profile page. At the top, there is a navigation bar with links for Resources, Policy, About, Documentation, API, Apps, Contact, and Live Chat. The user's account name is visible in the top right corner. The main content area is titled "User Profile" and displays the following information:

 - Username: **account_name**
 - Group: **group_name**
 - First Name: **your_first_name**
 - Last Name: **your_last_name**
 - E-mail: **your email**
 - Last Login: **time_joined**
 - Date Joined: (blank)

Storage Usage is shown for two locations:

 - /dicos_ui_home/your_account**: Latest Update: 2023-11-14 00:50:02. Usage: 2.3GB/100GB.
 - /ceph/work/your_group**: Latest Update: 2023-11-14 00:30:03. Usage: 0.4TB/4.0TB.

At the bottom, there are two buttons: "Edit Profile" (green) and "Change Password" (grey).

On the right side, there is a "Your account" dropdown menu with the following options:

 - User Profile (selected)
 - Usage Summary
 - Group Member List
 - Subscribe Storage Space
 - Resource Usage
 - Logout

Introduction of Home Space

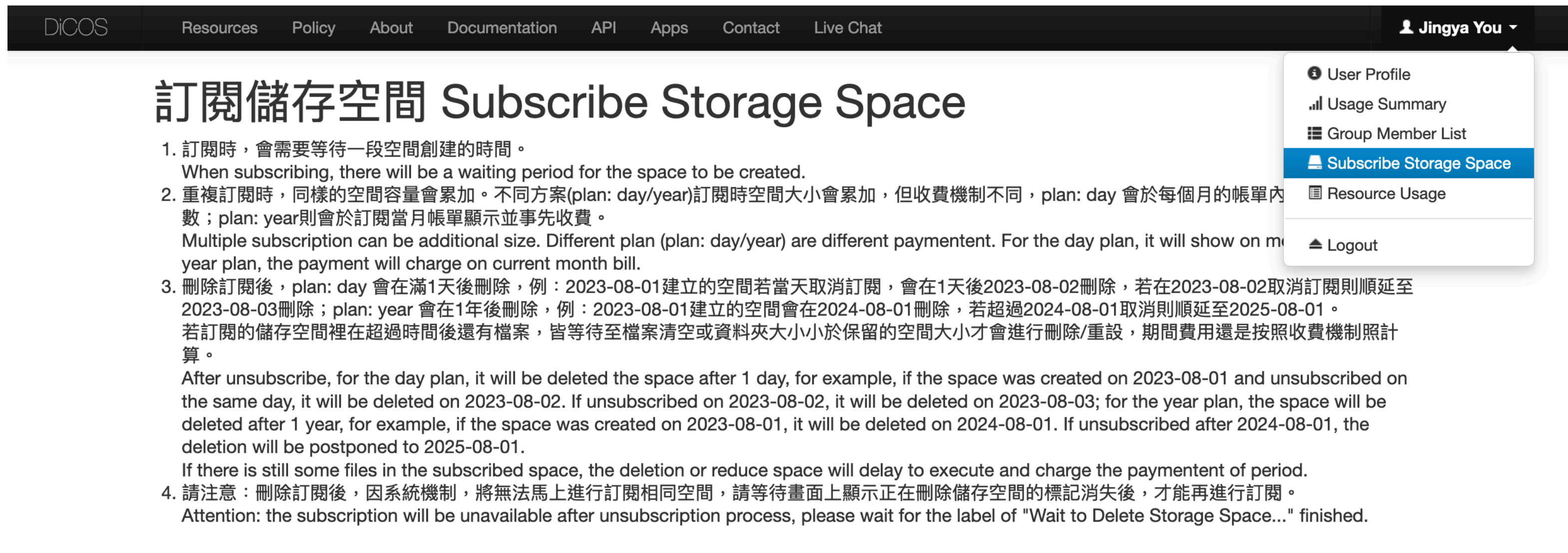
- /dicos_ui_home/{user_account}
- *Backup your important data in Home Space
- *Home space will be cleared once your account is expired and deleted.
- Avoid using Home Space as job's working space

Introduction of Group Working Space

- /ceph/work/{group}
- 3TB free space for each group
- This space is shared among all members of the group
- PI has full access and manage rights in this space
- PI can subscribe & upgrade for more space via dicos.grid.sinica.edu.tw
- *Backup your important data in Group Working Space

Subscribe More Group Working Space

- PI can subscribe for upgrade storage space
 - <https://dicos.grid.sinica.edu.tw/accounting/subscribe-storage>
- Day plan NT\$3 per day
- Year plan NT\$1000 per year



DICOS Resources Policy About Documentation API Apps Contact Live Chat Jingya You

訂閱儲存空間 Subscribe Storage Space

1. 訂閱時，會需要等待一段空間創建的時間。
When subscribing, there will be a waiting period for the space to be created.
2. 重複訂閱時，同樣的空間容量會累加。不同方案(plan: day/year)訂閱時空間大小會累加，但收費機制不同，plan: day 會於每個月的帳單內顯示；plan: year則會於訂閱當月帳單顯示並事先收費。
Multiple subscription can be additional size. Different plan (plan: day/year) are different paymentent. For the day plan, it will show on monthly bill; for the year plan, the payment will charge on current month bill.
3. 刪除訂閱後，plan: day 會在滿1天後刪除，例：2023-08-01建立的空間若當天取消訂閱，會在1天後2023-08-02刪除，若在2023-08-02取消訂閱則順延至2023-08-03刪除；plan: year 會在1年後刪除，例：2023-08-01建立的空間會在2024-08-01刪除，若超過2024-08-01取消則順延至2025-08-01。
若訂閱的儲存空間裡在超過時間後還有檔案，皆等待至檔案清空或資料夾大小小於保留的空間大小才會進行刪除/重設，期間費用還是按照收費機制照計算。
After unsubscribe, for the day plan, it will be deleted the space after 1 day, for example, if the space was created on 2023-08-01 and unsubscribed on the same day, it will be deleted on 2023-08-02. If unsubscribed on 2023-08-02, it will be deleted on 2023-08-03; for the year plan, the space will be deleted after 1 year, for example, if the space was created on 2023-08-01, it will be deleted on 2024-08-01. If unsubscribed after 2024-08-01, the deletion will be postponed to 2025-08-01.
If there is still some files in the subscribed space, the deletion or reduce space will delay to execute and charge the paymentent of period.
4. 請注意：刪除訂閱後，因系統機制，將無法馬上進行訂閱相同空間，請等待畫面上顯示正在刪除儲存空間的標記消失後，才能再進行訂閱。
Attention: the subscription will be unavailable after unsubscription process, please wait for the label of "Wait to Delete Storage Space..." finished.

More pricing information in <https://dicos.grid.sinica.edu.tw/resources>

Subscribe More Group Working Space

加購工作短期儲存空間 Upgrade Work Space

1T = NT \$3/1 day
PATH: /ceph/work/[group]/

Subscribe

加購工作短期儲存空間：1年方案 Upgrade Work Space：1 year plan

1T = NT \$1000/1 year
PATH: /ceph/work/[group]/

Subscribe

Current Storage Space

工作短期儲存空間 Work Space

GROUP: ASGC
PLAN: year
PATH: /ceph/work/ASGC/
Latest Update: 2023-07-27 00:30:04

0.0/5

工作短期儲存空間 Work Space

GROUP: ASGC
PLAN: day
PATH: /ceph/work/ASGC/
Latest Update: 2023-07-27 00:30:04

0.0/5

Unsubscribe Space

- Clear your data and release your space before unsubscription.
- Unable to unsubscribe if the space is not released
- Unsubscription process will be blocked when space couldn't release or cancelling year plan
 - Please contact dicos-support@twgrid.org

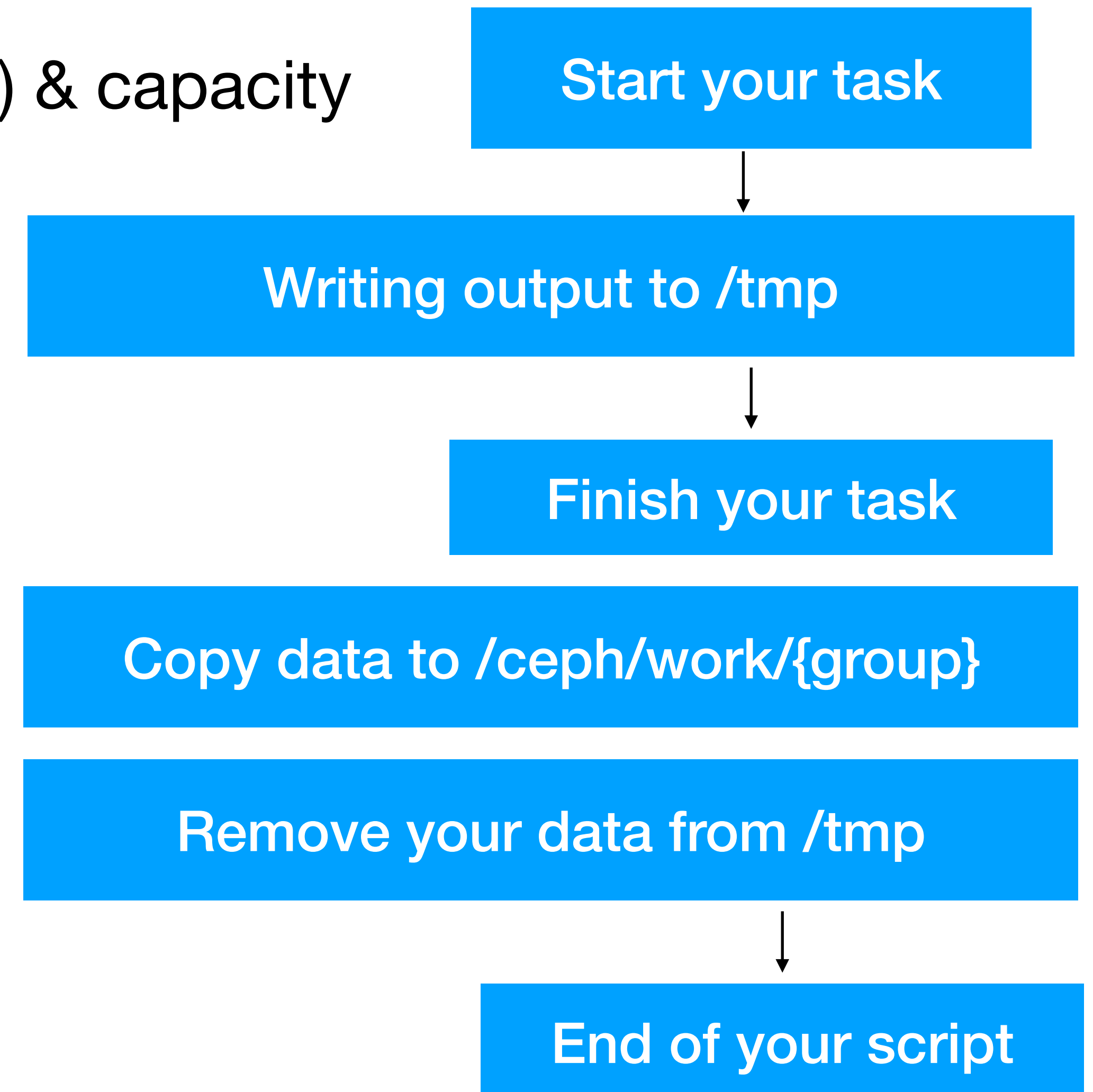


Working Space for Computing Jobs

- Group Working Space: `/ceph/work/{group}`
- Specify output files in Group Working Space if your program has high IO wait.
- You can also use `/tmp` as intermediate job working space
 - See instructions
- Data Transfer
 - See instructions

Using /tmp as Intermediate Working Space

- Each worker node has different spec (e.g. SSD) & capacity
 - [HDR1] SSD 1TB & [FDR5] NO SSD
- /tmp directory will be cleaned anytime
- Copy intermediate data to /ceph/work/{group}
- Remove files from /tmp when tasks finish



Group Preservation & Backup Service

- Tape System will be purchased next year
- /ceph/project/{group_account}

Hands-on

Linux Basic Command to Manipulate Files

Login

```
$ ssh username@slurm-ui.twgrid.org
```

```
$ ssh username@dicos-sftp.twgrid.org
```

Show current path

```
$ pwd
```

Move file

```
$ mv {src} {dest}
```

Remove file

```
$ rm file_name
```

Remove directory

```
$ rm -r dir_name
```

Using /tmp as Intermediate Working Space

- Create Temporary File in Linux

```
$ mktemp
```

```
$ /tmp/1mjAhAH3YM
```

```
$ mktemp /tmp/jyou-XXXXXX
```

```
$ /tmp/jyou-WxWtv
```

- Create Temporary Directory

```
$ mktemp -d
```

```
$ /tmp/tmp.1mjAhAH3YM
```

```
$ mktemp -d /tmp/jyou-XXXXXX
```

```
$ /tmp/jyou-WxWtv
```

Using /tmp as Intermediate Working Space

- Copy Temporary File:
 - `wget https://raw.githubusercontent.com/ASGCOPS/Hands-on-STORAGE-2023/main/temporary_file.sh`

```
1  #!/bin/bash
2
3  # Create a temporary file with a unique name under /tmp/ directory
4  TMPFILE=$(mktemp /tmp/Workshop-XXXXX)
5
6  # Append "User Training Workshop 2023" to the temporary file
7  echo "User Training Workshop 2023" >> $TMPFILE
8
9  # Get the filename (without the path) of the temporary file
10 filename=$(basename "$TMPFILE")
11
12 # Copy the temporary file to the specified destination directory (/ceph/work/ASGC/Workshop/)
13 cp $TMPFILE /ceph/work/ASGC/Workshop/$filename
14
15 # Remove the temporary file from /tmp/ directory to clean up
16 rm $TMPFILE
17
```

Using /tmp as Intermediate Working Space

- Copy Temporary Directory:
 - `wget https://raw.githubusercontent.com/ASGCOPS/Hands-on-STORAGE-2023/main/temporary_directory.sh`

```
1  #!/bin/bash
2
3  # Create a temporary directory with a unique name under /tmp/ directory
4  TMPDIR=$(mktemp -d /tmp/Workshop-XXXXX)
5
6  # Append "User Training Workshop 2023" to a file named "Workshop.text" inside the temporary directory
7  echo "User Training Workshop 2023" >> $TMPDIR/Workshop.text
8
9  # Get the directory name (without the path) of the temporary directory
10 filename=$(basename "$TMPDIR")
11
12 # Recursively copy the entire temporary directory to the specified destination directory (/ceph/work/ASGC/Workshop/)
13 cp -r $TMPDIR /ceph/work/ASGC/Workshop/$filename
14
15 # Remove the temporary directory and its contents from /tmp/ directory to clean up
16 rm -r $TMPDIR
17
```


Data Transfer using SFTP

- Node for Data Transfer: slurm-ui.twgrid.org or dicos-sftp.twgrid.org
- Linux Command

```
$ sftp username@slurm-ui.twgrid.org
```

```
## Upload file
```

```
$ sftp> put filename
```

```
## Download file
```

```
$ sftp> get filename
```

```
$ scp jyou@slurm-ui.twgrid.org:/ceph/work/ASGC/mydata/this.file .
```

```
$ scp -r jyou@slurm-ui.twgrid.org:/ceph/work/ASGC/mydata .
```

Data Transfer using FileZilla

1. Download [FileZilla Client](#)

2. Host (主機):

- dicos-sftp.twgrid.org

- slurm-ui.twgrid.org

3. Account (使用者名稱):
account

4. Password (密碼): password

5. Port (連接埠): 22

