

Storage & Data Transfer Service

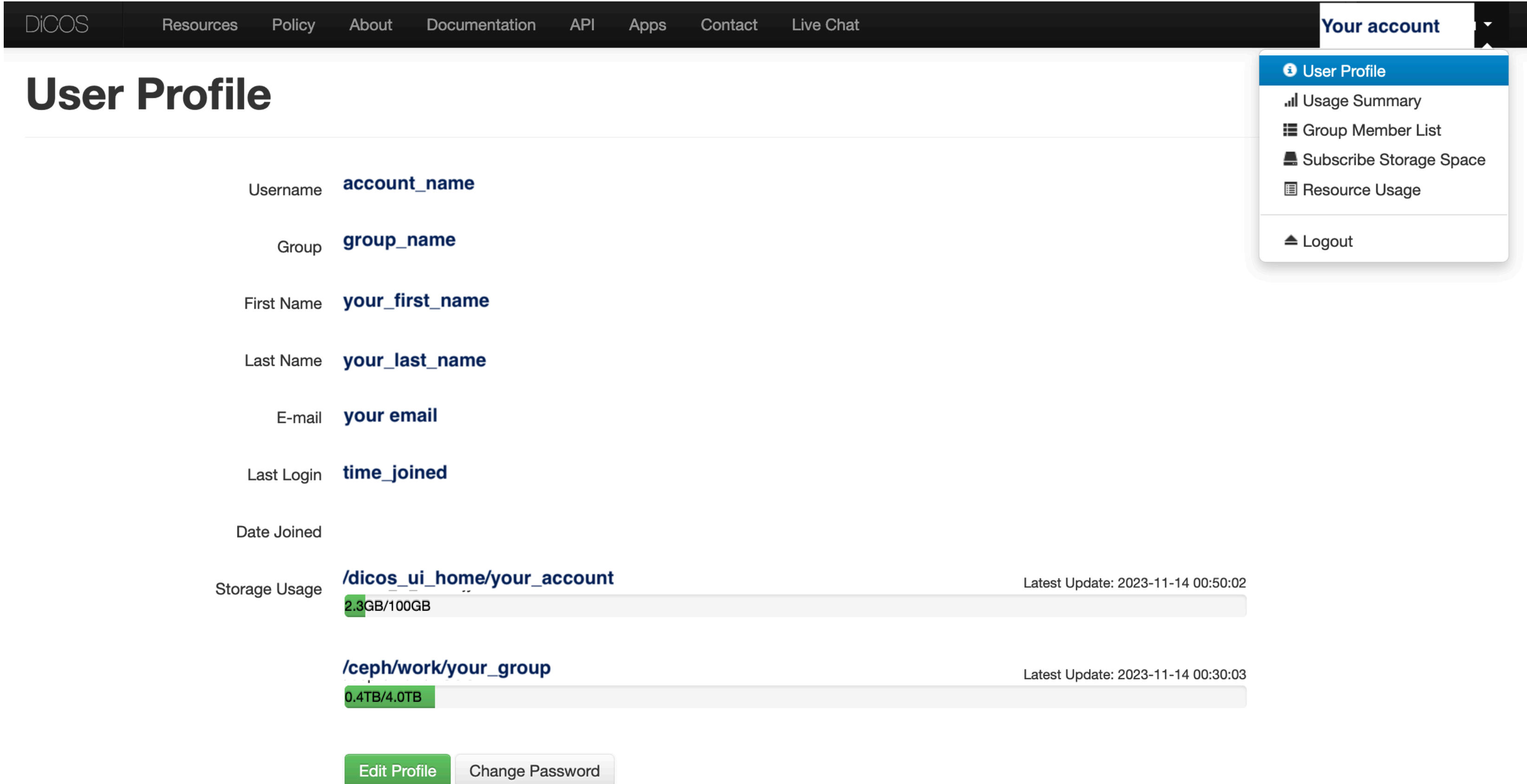
April 10, 2025

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>

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The screenshot shows the DICOS User Profile page. The navigation bar includes links for Resources, Policy, About, Documentation, API, Apps, Contact, and Live Chat, along with a 'Your account' dropdown menu. The profile information includes Username (account_name), Group (group_name), First Name (your_first_name), Last Name (your_last_name), E-mail (your email), and Last Login (time_joined). The Date Joined field is empty. Storage usage is shown for two locations: /dicos_ui_home/your_account (2.3GB/100GB) and /ceph/work/your_group (0.4TB/4.0TB). The page also features 'Edit Profile' and 'Change Password' buttons.

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

[Edit Profile](#) [Change Password](#)

Introduction of User's 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 you 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

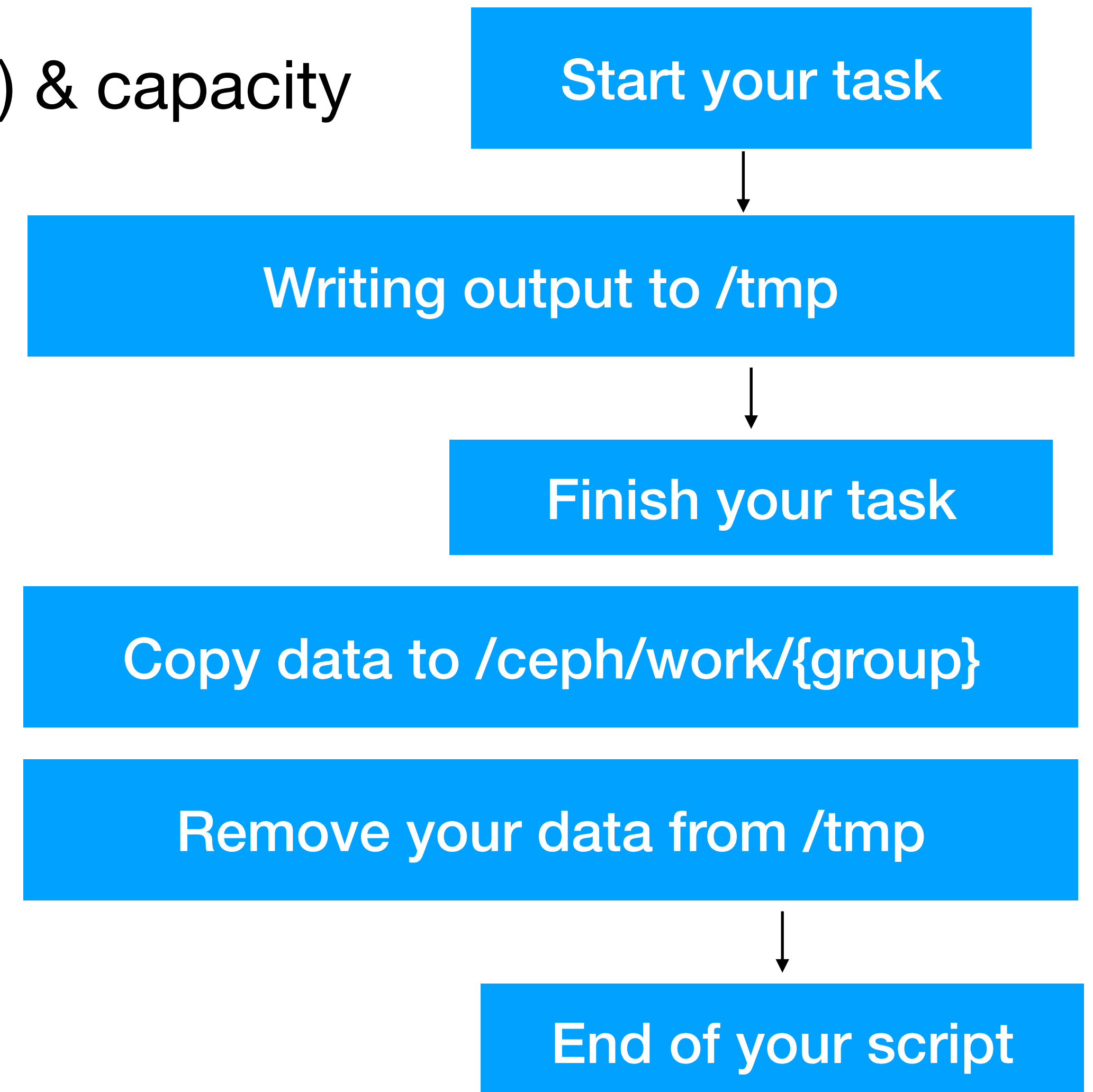


Working Space for Computing Jobs

- 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
- /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

