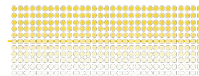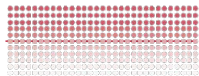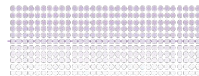# Get started on NeSI

Nooriyah Lohani
Research Communities advisor
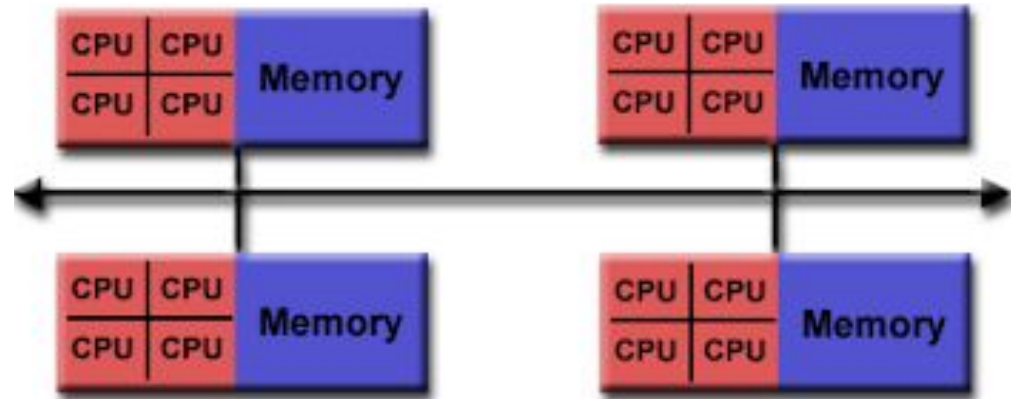
New Zealand eScience Infrastructure

Overview

- Getting started
- Language (Jargon)
- Files and Directories
- File Paths
- Moving Data
- Things to note
- Getting help
- Q&A session

Getting Started

- Get an account on NeSI
  - https://support.nesi.org.nz/hc/en-gb/articles/360000159715-Creating-a-NeSI-Account
  - https://my.nesi.org.nz/

- Request a project/allocation
  - https://www.nesi.org.nz/applyforaccess

- Set-up Password and 2 factor authentication
  - https://support.nesi.org.nz/hc/en-gb/articles/360000335995-Setting-Up-and-Resetting-Your-Password
  - https://support.nesi.org.nz/hc/en-gb/articles/360000203075-Setting-Up-Two-Factor-Authentication

- Setup terminal (ssh configuration)
  - https://support.nesi.org.nz/hc/en-gb/articles/360000625535-Standard-Terminal-Setup

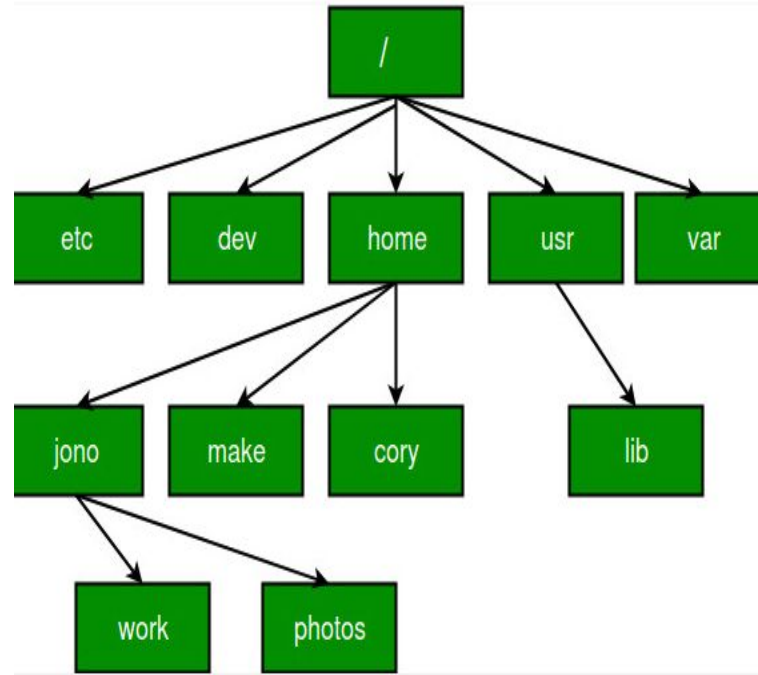# Some keywords to communicate your requirements

- **Cluster** - a network of computers, often called **nodes**

- **CPU cores** - Each node has many CPU cores

- **SSH** (Secure Socket Shell) - a secure way to connect into the NeSI computers via command-line

Some keywords to communicate your requirements

- **Disk space allocation** - the amount of storage space you are assigned for your project - default: 100 GB, 100,000 inodes (files) persistent, 10 TB, 1 M inodes nobackup (can be increased as necessary)

- **Wall time** - Time taken for a computer program to run from start to finish

- **RAM/memory** - a type of memory that stores data that is being worked on during the running of the computer program; almost instant access

Files and Directories

- To Navigate to 'lib'
  - cd /usr/lib
- Once I am in 'lib' and want to move to home
  - cd ..
  - cd ..
  - cd /home/

https://support.nesi.org.nz/hc/en-gb/sections/360000278975

File paths: on NeSI

Home directory:

/home/npoo010

Project directory:

/nesi/project/nesi99999

No Backup directory:

/nesi/nobackup/nesi99999

Moving Data

- *scp* *https://support.nesi.org.nz/hc/en-gb/articles/360000578455*

  - smaller data transfer
  - From laptops or hard drives

- Globus

  https://support.nesi.org.nz/hc/en-gb/articles/360000576776

  - Transfers from institutional clusters is faster
  - Prereq. - setup a personal endpoint
  - Easier to share data with collaborators (if they are not on NeSI)

Things to note

- **NeSI Tip**: Logging into Mahuika on a terminal window before the transfer will make the process smoother

- Do **not** close the terminal window as soon as you run the command (especially while transferring folders); make sure the progress bar shows '100%' before you close it

- **Evaluate** a successful transfer: To make sure your files have been successfully transferred, it is a good idea to check that the file size of the original and transferred file(s) are the same

Some things to think about before starting a project (optional but useful)

1. How much permanent disk space will this project need?

2. How much temporary disk space will this project need (such as intermediate files created during a job then able to be deleted straight after)?

3. What is the maximum amount of memory you will need to run a job?

4. How many CPU's do you think your jobs will need?

5. How long will your longest job be?

6. Will you require any help installing any software?

7. Does any of the software you plan to use have any licensing requirements?

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Ready to get started …

Apply for access: https://www.nesi.org.nz/apply

Getting help

The webinar recordings can be found on our Youtube channel

Goodluck with your projects!

Questions ?

Always here to help - email support@nesi.org.nz