ENUCC: Quick Start User Guide

Edinburgh Napier University Compute Cluster

ENUCC is a university wide HPC resource located in our Merchiston Computer Room. This centralised service is managed and maintained by IS and supported by Alces Flight.

Getting Connected

Request an account for ENUCC

To request a new user account, please fill in this form on the Unidesk Self Service Portal: https://tinyurl.com/enucc-forms

Your username will be the same as your University Username e.g. `40017187`
Once setup, this will allow you to login to the cluster using your existing AD password.

Generating an SSH key pair

We recommend generating a new SSH key for this service.
How you generate your SSH key pair depends on which operating system you use and which SSH client you use to connect to ENUCC.
We suggest looking up the best practices depending on how you plan on connecting to the cluster depending on your chosen client, below is an example:

```
$ ssh-keygen -t rsa -C "40017187"
```

Please include <u>only</u> your public key when signing up for your account.

SSH Clients

As stated above, you will interact with ENUCC via SSH.
MacOS, Linux and Windows will all have a local terminal which you can use.
If you are after a terminal with some extra features below are some recommendations:

- MacOS: iTerm2
- Windows: MobaXterm
- Linux: Terminator

Logging in to ENUCC

To login to ENUCC, after your account has been successfully created, you should use the following address:

```
$ ssh [userID]@login.enucc.napier.ac.uk
```

If you are trying to connect to the cluster from off campus (this includes via Eduroam without the VPN) you will need to proxy jump via our SSH Gateway service.

To make this easier we would suggest setting up an SSH config file like the following:
`# vim .ssh/config`

Then enter the following:

```
Host ext.login.enucc
     HostName login.enucc.napier.ac.uk
     User 40017187
     ProxyJump 40017187@gateway.napier.ac.uk
```

You will then be able to connect to the cluster from an external network by running the following:
`# ssh ext.login.enucc`

Port forwarding

If you require to access a web-based application running on the cluster, you can simply port forward on your SSH connection.
i.e. `ssh -NL 8888:localhost:8888 login.enucc.napier.ac.uk`

Essential Skills

Linux Command Line

A guide to using the Unix Shell for complete novices.
https://swcarpentry.github.io/shell-novice/

For those already familiar with the basics, there is also a lesson on shell extras.
https://carpentries-incubator.github.io/shell-extras/

Basic Slurm commands

Slurm is the scheduler used on ENUCC.
Below is a guide to using some basic Slurm commands.
https://slurm.schedmd.com/quickstart.html