

Server Resources at Dept. of Geosciences

What and how?

Hans Peter Verne

Geofag/UIO

2024-09-03

<https://www.mn.uio.no/geo/english/services/it/>

<https://www.mn.uio.no/geo/english/services/it/help/using-servers/>

Mostly running RedHat Enterprise Linux

- mimi.uio.no
General server, 256 AMD Epyc CPUs, 1 TB memory
- ivan.uio.no
General server, 80 Intel Xeon CPUs, 1.5 TB memory
- serac.uio.no
Geohyd server, 80 Intel Xeon CPUs, 256 GB memory
- pingo.uio.no
Login server. Not for computations.
- keilhau.uio.no
Fedora server. Not for heavy computations.

No queueing system. Check load before you start heavy jobs.

<https://www.mn.uio.no/geo/english/services/it/help/using-linux/running-programs.html>

<https://www.mn.uio.no/geo/english/services/it/help/servers/computing-resources.html>

Storage on network

- /uio/hypatia/geofag-felles
- /uio/hypatia/geofag-personlig

https://www.mn.uio.no/geo/english/services/it/help/storage/1_data-storage-at-the-department/index.html

Computational servers also have fast scratch disks:

- mimi, ivan: /scratch
- serac: /work

Please create a subdirectory with your username.

Note: **No Backup** on scratch disks. Only for work in progress, not for general storage.

- mimi has a Nvidia Quadro RTX 6000 card, with 4608 CUDA cores.
- ivan has a NVIDIA Tesla T4 16GB, with 2560 CUDA cores.

<https://www.mn.uio.no/geo/english/services/it/help/using-servers/using-gpu-mimi.html>

- All servers have MATLAB (various versions)
- Python (various versions)
- GMT
- A lot of stuff as modules
Command **module avail**
- Missing anything?

Logging in

- Use ssh, as in `ssh username@mimi.uio.no`
- Not on campus? 2FA, jumphost, ...
- VDI “Geofag login”

<https://www.mn.uio.no/geo/english/services/it/help/using-linux/access-from-outside.html>

<https://www.mn.uio.no/geo/english/services/it/help/using-linux/ssh-tips-and-tricks.html>

<https://www.mn.uio.no/geo/english/services/it/help/using-servers/vdi-geofag-login.html>

- geo-hiperf.uio.no
24 cores Intel Xeon, 512 GB memory
- Lots of Windows software

<https://www.mn.uio.no/geo/english/services/it/help/using-servers/software-ts/geo-hiperf.uio.no.html>

Not managed by the department of Geosciences.

- VDI (also with 3D)
<https://www.uio.no/english/services/it/computer/vdi/>
- NREC – Infrastructure as a Service
<https://www.uio.no/english/services/it/hosting/iaas/index.html>
- Fox – High Performance Computing cluster for Educloud
Research users
<https://www.uio.no/english/services/it/research/hpc/fox/>
- Sigma2 National HPC resources
<https://www.sigma2.no/>