Data and Compute Resources within RSES

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Research Services

"RSES IT" provides a number of services directly to researchers, for example:

- Shared Compute
- Shared Storage
- Limited Web Hosting
- Physical Server Hosting
- Access to ITS services (e.g. provision of virtual servers, some storage)

Our services vary depending on requirements – some researchers may want rack space for equipment, others may want fully maintained systems. Most systems are funded by researchers, but for small scale requirements we can sometimes use our existing capabilities.

rses.it@anu.edu.au **http://itservicedesk.anu.edu.au/**

Terrawulf HPC Cluster

Terrawulf is the High Performance Computing cluster in the Earth Physics area. Its role is to solve large complex computational problems in the Earth Sciences using parallel processing techniques.

- 62 IBM x3550 nodes (Terrawulf 3)
- 96 IBM x3455 nodes (Terrawulf 2)
- IBM x3650 head node + separate storage server
- Total of 1128 cores with up to 8GB RAM per core
- 15TB local storage and 16TB shared storage
- A separate testing/staging node is available for software compatibility testing and development

http://rses.anu.edu.au/terrawulf

Shared Compute

Shared computational systems hosted in RSES:

Seismology and Mathematical Geophysics / Earth Dynamics

compute1: 16 cores, 2.6GHz Intel Xeons, 128GB of memory, Ubuntu Linux

compute2: 8 cores, 3.3 GHz Intel Xeons, 256GB of memory, Ubuntu Linux

Climate and Fluid Physics

mizuchi: 16 cores, 3.4 GHz Intel Xeons, 256GB of memory, Ubuntu Linux

(We also provide rack space and services for other research groups)

Shared Storage

Shared storage systems hosted in RSES:

Seismology and Mathematical Geophysics

Tdata/Sdata: 120TB available on compute2 and over the network

Earth Dynamics

Gdata: 4TB available over the network

Climate and Fluid Physics

space1: 40TB available over the network

There's also a large amount of 'scratch' (temporary/working/**not backed up**) storage available on various systems (clue: anything with /scratch in the path). You need to have your own recovery plan for data stored on scratch areas.

Other compute and storage

NIS home areas

Users with NIS accounts (Unix/Linux) have limited storage in their home areas.

files.rses

Smaller group file shares, accessible to Windows users (and others). We can set up new small file shares on request for those needing them.

backuppc

RSES members can opt into having their desktop or laptop backed up regularly over the school wired network on one of our ‘backuppc’ servers.

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