

Rocky 8 Transition Guide

Due to the arrival of the GPUs at the TeideHPC supercomputing center, a new version of the operating system has been introduced that is used by both the computing nodes, GPUs and login nodes. All the cluster related to Centos 6 and Centos 7 will be at the end of life in a few months. Some changes have been made to the cluster and software so if you have already run jobs on the cluster you will need to make adjustments to your workflow.

Summarizing, these are the most significant changes at the level of the Operating System, software, slurm are the following:

OS

- The cluster and the new login nodes are now in Rocky 8.
- There are **2 new login nodes** arranged in high availability (HA).

Software

- The change in operating system means that most users' software based on Centos 6 or CentOS 7 will not work and has to be recompiled.
- *TCL* modules tool is no longer used (Centos 6) and *Lmod* is used instead (Centos 7 and Rocky 8).
- The installed software is now organized by **hierarchical nomenclature**
- Each type of nodes has the specific software installed and compiled for each node architecture. This means:

The software installed depends on node architecture

- Basically there are 2 architectures: **icelake** (nodes with GPUs) and **sandy** (CPU nodes).
- Look at the **description of the cluster** on the main page as well as the page "**How to request GPU and computing resources**".
- To list the software, request a node according to its architecture.

Slurm

- **Node allocation changes from *NON-Shared Mode* to *Shared Nodes*.**

This means that by simply requesting 1 compute node, the full node is not requested for the user, thus forcing the user to make a full reservation of resources.

- The default parameters assigned by slurm are:

```
#SBATCH --node=1
#SBATCH --ntask=1
#SBATCH --ntask-per-node=1
#SBATCH --cpu-per-task=1
#SBATCH --mem=2GB
```

- The use of **constraints and GRES** for the **request of computing resources and GPUs** has been introduced.
- You can study the **efficiency of your completed jobs** with a simple command.

Public repository with examples

To facilitate the start and access on HPC computing at TeideHPC, we have created a public repository on github where we will publish examples of use of applications.

We encourage you to collaborate on it. https://github.com/hpciter/user_codes