

Job submission to “cc-reserved” partition:

The “cc-reserved” partition in the RedRaider cluster consists of all the worker nodes formerly known as Community Cluster (CC) nodes. In the previous setup, each CC node was accessible from a separate UGE queue limited to a specific list of users. In the new structure, all the CC nodes are added into a single Slurm partition and are ready to be accessed by the same users via a separate “reservation” and “account” set up in Slurm.

The table below shows the Slurm configuration on CC nodes in the RedRaider cluster:

Partition	Account Name	Reservation Name	#Nodes	Node List	CPU /Node	Mem /Node	Mem /Core
cc-reserved	yoda	yoda	1	cpu-18-49	20	515964 MB	25798 MB
cc-reserved	chewie	chewie	5	cpu-18-[50-54]	20	161148 MB	8057 MB
cc-reserved	r2d2	r2d2	1	cpu-18-56	20	32124 MB	1606 MB
cc-reserved	dahlcc	dahlcc	2	cpu-17-[59-60]	32	128828 MB	4025 MB
cc-reserved	caocc	caocc	3	cpu-17-[49,50,52]	24	64316 MB	2679 MB
cc-reserved	blawzcc	blawzcc	1	cpu-17-51	32	64316 MB	2009 MB
cc-reserved	phillipsc	phillipsc	4	cpu-17-[57-60]	32	128828 MB	4025 MB
cc-reserved	tang256cc	tang256cc	1	cpu-17-61	20	257916 MB	12895 MB
cc-reserved	tangcc	tangcc	1	cpu-17-62	20	257916 MB	12895 MB

The following command shows the configuration of each reservation setup:

```
$ scontrol show reservationname=<reservation_name>
```

Job submission to “cc-reserved” partition:

```
#!/bin/bash
#SBATCH --job-name=Test_Job
#SBATCH --output=%x.o%j
#SBATCB --error=%x.e%j
#SBATCH --nodes=1
#SBATCH --ntasks-per-node=10
#SBATCH --mem-per-cpu=1G
#SBATCH --time=10:00:00
#SBATCH --partition=cc-reserved
#SBATCH --account=r2d2
#SBATCH --reservation=r2d2
```

Above is a sample Slurm job submission script for CC users on the RedRaider cluster. The combination of the last three lines (--partition, --account, --reservation) defines which users can access the nodes on the “cc-reserved” partition. The right combination of these options can be found in the table above.

- The `--nodes` and `--ntasks-per-node` options depend on the available number of nodes and CPU cores per node on each reservation (Please refer to the “#Nodes” and “CPU/Node” in the table above)
- If `--mem` or `--mem-per-cpu` was not defined, the default memory per CPU core on each reservation will be assigned to the job. (Please refer to the “Mem/Core” column in the table above)
- CC users have no time limit per job on the “cc-reserved” partition. However, the `--time` option has to be defined with a maximum runtime that can be guesstimate for the job. Otherwise, a default runtime of 72 hours will be assigned to the job.

For more information regarding the job submission on the RedRaider cluster, please refer to the user guide on the HPC website:

https://www.depts.ttu.edu/hpcc/userguides/general_guides/Job_User_Guide.pdf

Establish interactive sessions to “cc-reserved” nodes:

User can make interactive sessions to the “cc-reserved” nodes that they have access to:

```
$ interactive -p cc-reserved -A <account name> -r <reservation name> -c <#Cores>
```

For more information regarding the interactive session on the RedRaider cluster, please refer to the “Interactive Jobs” section of Job Submission Guide on the HPC website:

https://www.depts.ttu.edu/hpcc/userguides/general_guides/Job_User_Guide.pdf