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:

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

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
#SBATCH --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 HPCC website:


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 HPCC website: