Athens, Greece

Slurm User Group Meeting 2016

16.05 - Releases

- 16.05.0 Released in May 2016
- Current release: 16.05.4
  - 16.05.5 due by the end of September

16.05 - Partition Options

- Partition option "Priority" split to two new settings:
  - "PriorityTier" - only affects preemption.
  - "PriorityJobFactor" - only affects job priority.
    - PriorityWeightPartition now useful.
- Partition option "Shared" renamed to "OverSubscribe"
  - "--shared" option to salloc/sbatch/srun changed to "--oversubscribe".

16.05 - Cgroups

- Change default CgroupMountpoint (in cgroup.conf) from "/cgroup" to "/sys/fs/cgroup" to match current standard.
- 16.05.5+ does not require the ReleaseAgent setting.
  - All cgroup hierarchies should be cleaned up on job completion by slurmctld.
  - Avoids mount option conflict with systemd.

16.05 - Highlights

- PMIx protocol support added.
- Add Multi-Category Security (MCS) infrastructure to permit nodes to be bound to specific users or groups.
- Added --deadline option to salloc, sbatch and srun. Jobs which can not be completed by the user specified deadline will be canceled with a state of "Deadline" or "DL".
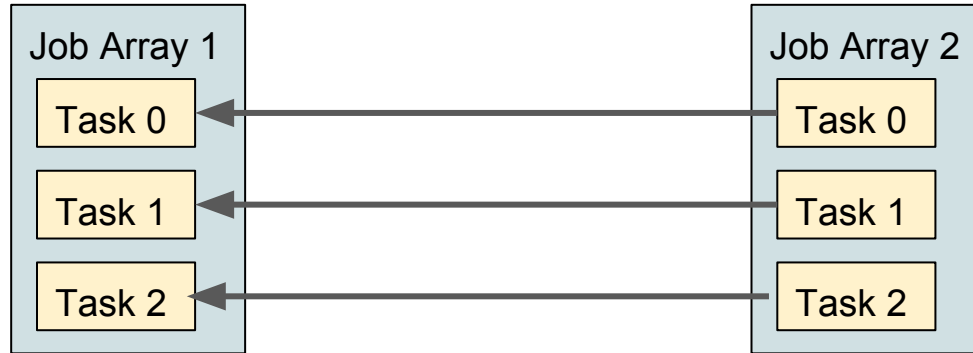
16.05 - Highlights

- Add an "scontrol top <jobid>" command to re-order the priorities of a user's pending jobs.
  - May be disabled with the "disable_user_top" option in the SchedulerParameters configuration parameter.

16.05 - Job Array Dependencies

- Added new job dependency type of "aftercorr" which will start a task of a job array after the corresponding task of another job array completes.
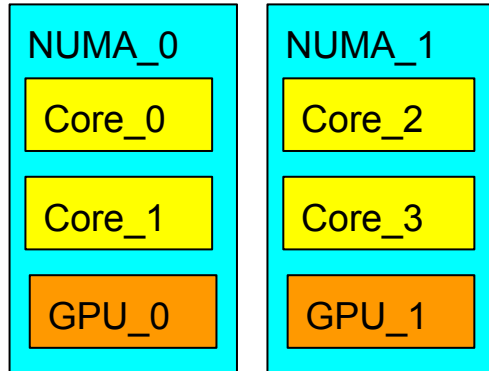
16.05 - Wrappers for other WLMs

- Added wrappers for LSF/OpenLava commands.
- Added Grid Engine options to qsub command wrapper.

16.05 - GRES Binding

- Add --gres-flags=enforce-binding option to salloc, sbatch and srun commands
  - Matching socket/NUMA required for CPU and GRES allocations

NUMA_0	NUMA_1
Core_0	Core_2
Core_1	Core_3
GPU_0	GPU_1

GPU_0 can only be allocated with Core_0 and/or Core_1

GPU_1 can only be allocated with Core_2 and/or Core_3

16.05 - KNL

- Added node_features plugin infrastructure
- Split node Features field into two parts
  - Active features
  - Available features (can become active after reboot)
- Added support for KNL on Cray systems
  - Support for generic Linux clusters currently being tested