Whole Node Scheduling

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Process

- Modified Slurm configuration (server: slurm)
  - Simplified partition list, since number of cores to be used is no longer an issue
  - `PartitionName=compute default=yes MaxTime=25:00:00 Nodes=alice-[001,003-056,060,061,063-070,079-084,086-102,104-105,107-112],alice-cray[011-018]`
  - Cleanup: removed SlurmdTimeout – not needed
  - Modified maxjobs from 5000 to 500. Probably no net effect.

- Modified CE environment

```
< export SUBMIT_ARGS="-o /tmp/jobagent_%j.out -e /tmp/jobagent_%j.err
   --gres=MaxJobs:1"
> export SUBMIT_ARGS="-o /tmp/jobagent_%j.out -e /tmp/jobagent_%j.err
   --nodes 1 --exclusive"
```

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Process (2)

- Changes to LDAP
  - Handled elsewhere ☺

- While system load was light, updated compute nodes, rebooted (some nodes up over 180 days)
  - In passing: Some service hosts up > 490 days, still running happily

- Modified startup/shutdown, etc scripts. Much simpler now.

```
[aliprod@voboxslr ~]$ cat alien-services-start.sh
#!/bin/bash
/cvmfs/alice.cern.ch/scripts/vobox/jalien-vobox.sh start monalisa
/cvmfs/alice.cern.ch/scripts/vobox/jalien-vobox.sh start ce
```

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Outcomes

- Initial job instability
  - Jobs requiring large amount of memory, OOMs
  - Instability was in O2 MC jobs; coincidental to whole node scheduling change
  - Looks good now.

- Spot problem
  - Some nodes will go a long time without getting a job. How to debug?

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Per Node Efficiencies (Purple is Good)

Nobody likes alice-109

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