

Nebraska USCMS Tier 2

Status and Plans for 2010-2011



Current Storage Element Status

- DFS implementation – Hadoop HDFS. Shutoff dcache.
- **820 TB** raw; 400 TB for hosting. Triple replicate /user and /unmerged.
- Currently only utilizing a single ‘rack’ in hadoop for storage management.
- 3 Bestman Servers
- 9 gridftp doors

Current CE Status

- Dedicated resources at Lincoln
 - ~230 Worker Nodes. ~1300 batch slots
 - ~5.9 kHS06
 - 2 CEs, 2 squid servers
 - Fall over squid to our T3 in Omaha
- The 'Omaha' T3 Opportunistic use.
 - ~6000 batch slots
 - 3 CEs, 2 squid servers (with fall over to Lincoln)
 - 50 TB of disk

2010 Pledge Roadmap

- 1.2 PB of Raw storage. Requires an influx of 400 TB of new disks. 40 R710s with 6 2TB drives will meet the needs. 2 racks of servers. ~\$170K
- This will give us 320 more batch slots, adding ~2.8 kHS06* above what we already have (~5.9kHS06).
- We've already prepared our switch for the additional servers.

* Based <http://www.infn.it/CCR/server/cpu2006-hepspec06-table.jpg>



New System Deployment Technology

- Kickstart was getting out of hand and becoming unwieldy. (Mostly due to adding so many different variations of workernode configs.)
- We're now using **Cobbler** to deploy our machines. **Cobbler** allows for very powerful scripting and node management with a web interface.



The move to virtualize

- We've been slowly moving core services to virtual hosts as we can
 - Squid
 - GUMS
 - SRM
 - Nagios/RSV
- Purchased 2 DELL R710 with 72 GB of ram to serve as new XEN hosts with SCSI vault storage backend for live migration.