# D0 Taking Stock 11/2004 - 06/2005

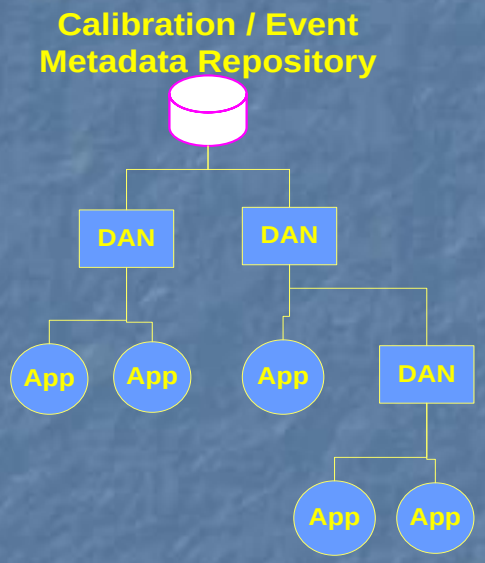
Calibration Database Servers

# Overview

- Successfully running during the last calendar year
- No major problems have arisen
- Mature product with low maintenance requirements
- 10 different types of Calibration dbservers currently running
  - Muon servers, farms and users, are available but are still not being used
  - Can d0reco be changed so these servers be can shut down?

# Deployment

- Remote Servers now exist at:
  - Karlsluhe, IN2P3, Imperal College, WestGrid, SAR
- Remote sites beginning to run within the next few weeks:
  - OSCER (this is mostly Univ. of Oklahoma)
    Prague
    Manchester
    Wisconsin
    CMS (at fnal)
    Lancaster (it may take bit for Lancaster to get going due to manpower limits)
    RAL (same comment as for Lancaster)
- Possible new remote sites:
  - Michigan State, Brookhaven, SLAC
- Remote Servers are processing data with p17.03.03 of d0reco.



# Hardware

- Production nodes
  - Two nodes, with servers divided for farms/users
  - Dual 1.5 GHZ AMD Athlon w/2 GB Memory
- Failover nodes
  - Two nodes, one serving each production node
  - 1, Dual 1.5 GHZ AMD Athlon w/2 GB Memory (farms)
  - 1, Dual 1.0 GHZ Pentium III  w/1 GB Memory (users)
- Hardware is supporting current loads and is expected to support load increase.
  - Contingency plan is to add new nodes and servers.

# Concerns & Plans

- Increasing Farms Load
  - 160 Additional dual processor, and faster, CPUs being added
  - Db servers are expected to be able to handle the expected load increase.
  - Contingency plan:
    - Added a new node with additional servers, split the farm requests across servers, develop a load manager.

# Concerns & Plans

- Multi-Run Data Sets
  - For each distinct run the client will request an entire calibration set.
  - Db servers may face difficulties trying to handle diverse multi-run sets of events from multiple users.
  - Possible solutions:
    - Double the size of the cache from ~20 runs to ~40runs
      - May require additional Linux boxes.
    - Add additional Linux boxes with large cache servers. Develop a load manager for distribution of requests.
- Maintenance & Support
  - Upgrade is underway to version 4.x of omniORBpy.
    - Some minor bugs will be addressed during the upgrade.
  - Continue providing support for remote sites.