Status of OO Production at FNAL

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March 6 2001 (CMS week)

- Update of Status of OO Production at Fermilab and UCSD

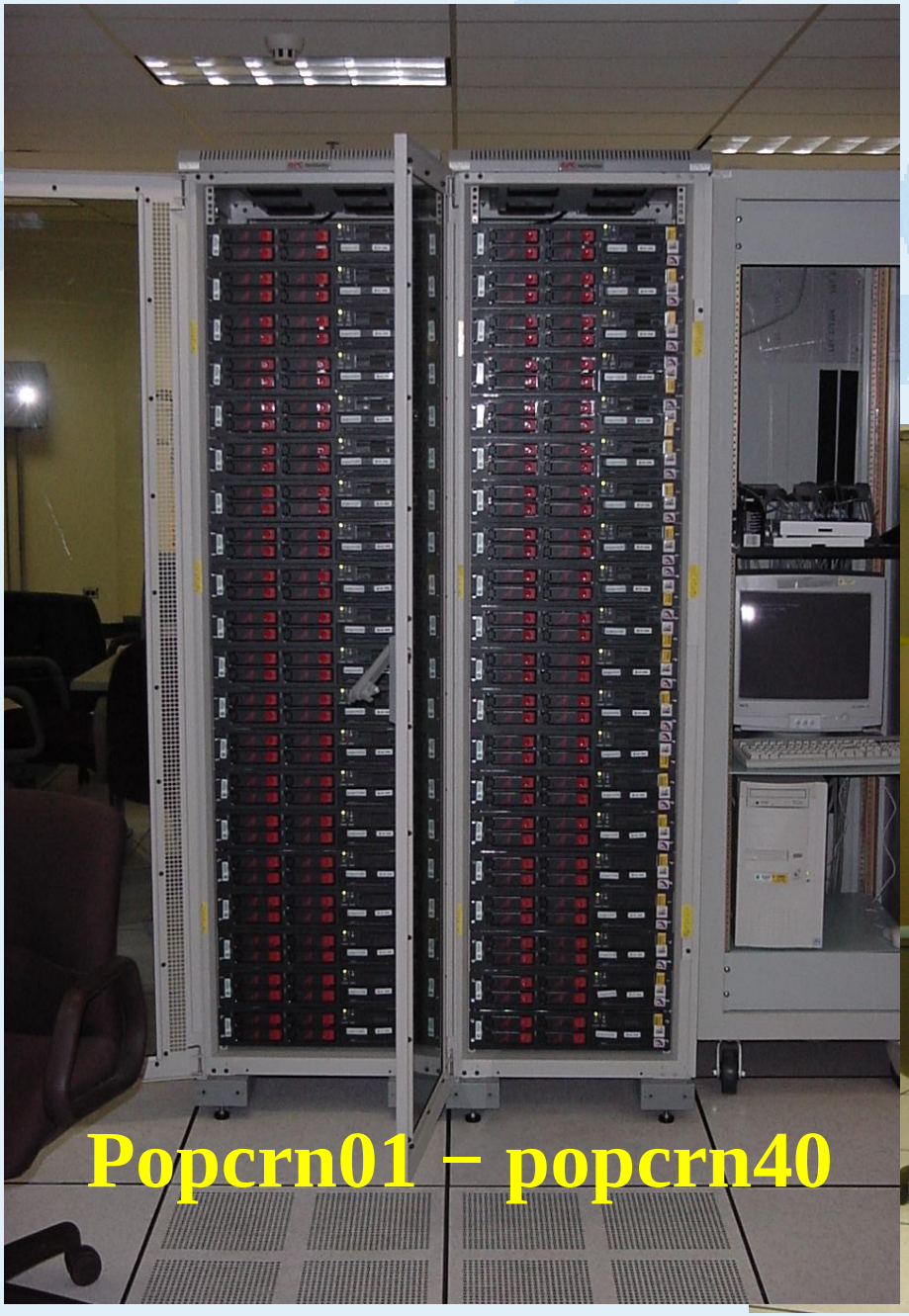
Status of OO Production at Fermilab

- Plenty of production data in enstore tape robot: http://home.fnal.gov/~cmsprod/monitor/report.html
- Data cards and configuration scripts
- http://home.fnal.gov/~cmsprod/Production.html
- Monitoring page, links to tools and scripts http://computing.fnal.gov/cms/Monitor/cms_producti

• Hardware and software used in Production

- **2 Dell Servers with 4 Pentium CPU's. GALLO is the IO node of the FARM and VELVEETA is the Objectivity Database host. Each has > 200 Gbyte raid attached.**
- **40 dual CPU (popcrn01−popcrn40). For Digis production 10 are used as pile up server leaving the other 30 (60 CPU's) as worker nodes. Currently we have a sample of 500 000 minimum bias events.**
- **STK robot (enstore)−−> tapes are made by the devil (pure evil)**
- **FBSNG batch system −−> can only recommend**

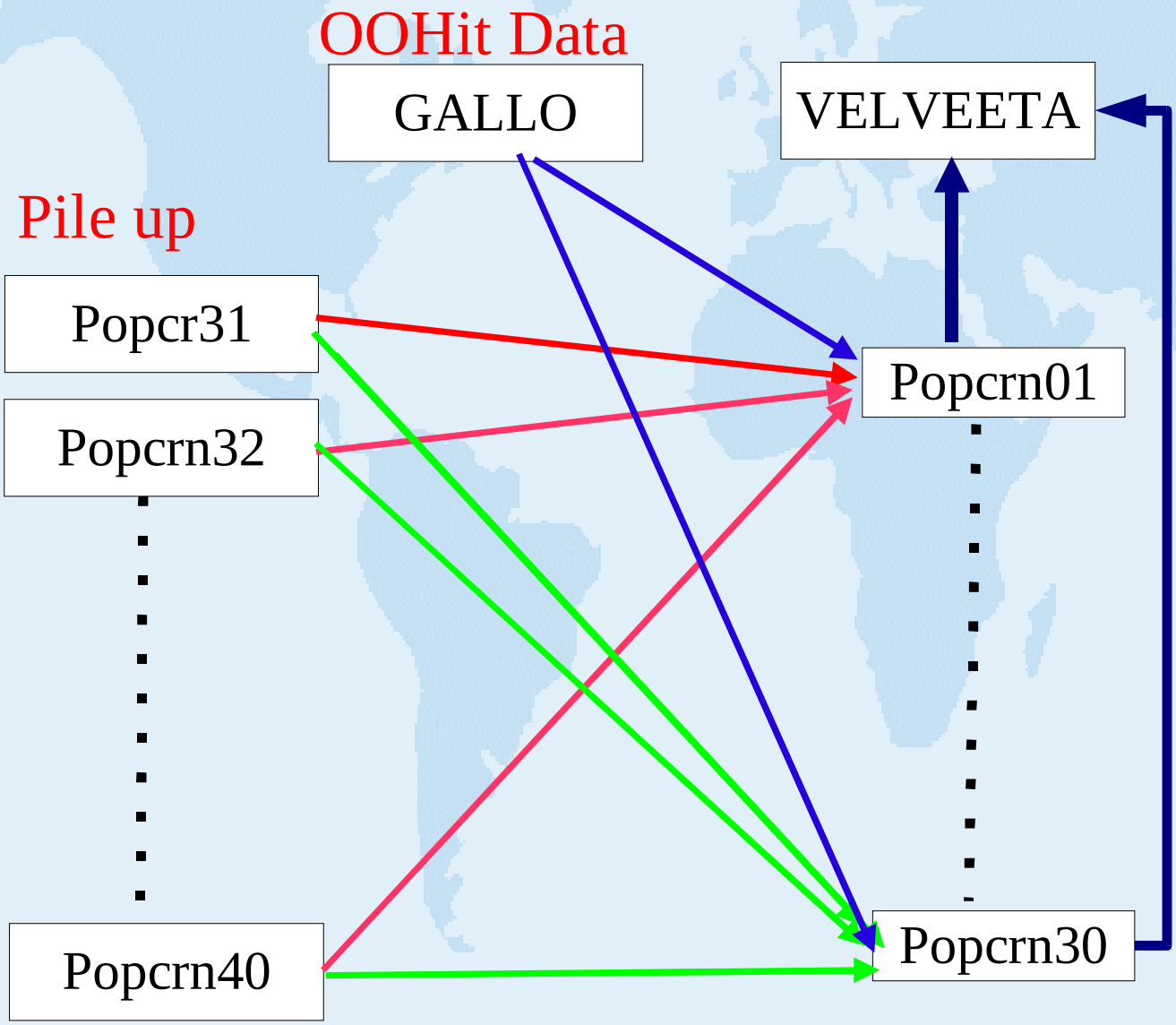
WORKERS:



SERVERS:

GALLO,WONDER,VELVEETA, CMSUN1

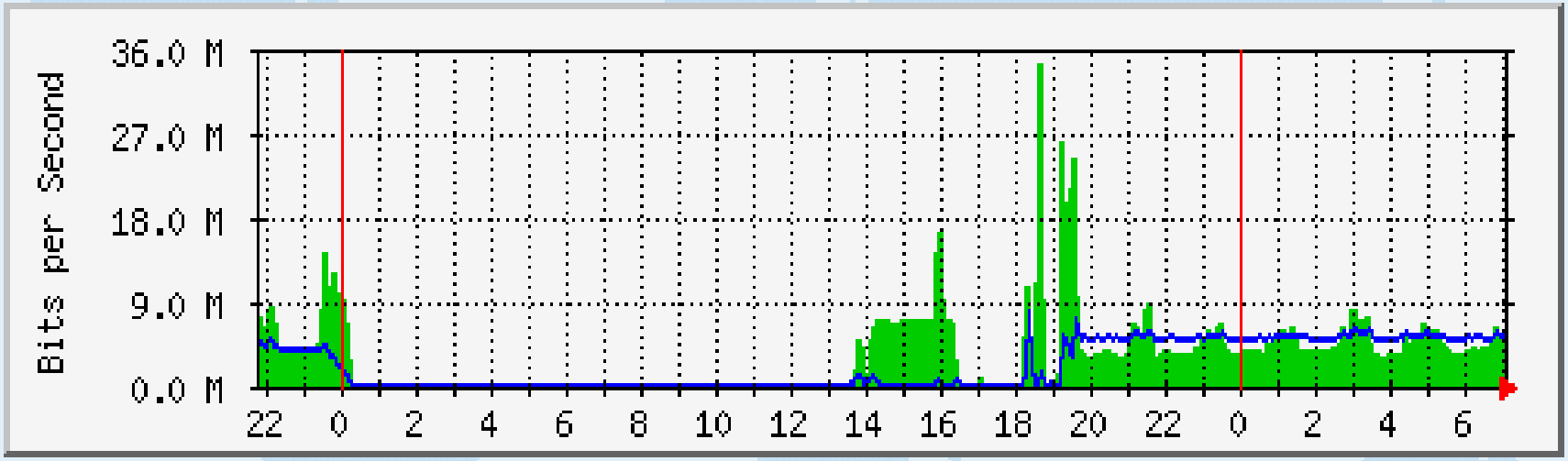
OODigis



AMS Servers on
popcrn31−popcrn40
(pile up servers)
GALLO (data server)
VELVEETA (DB host)

Every one talks to everyone

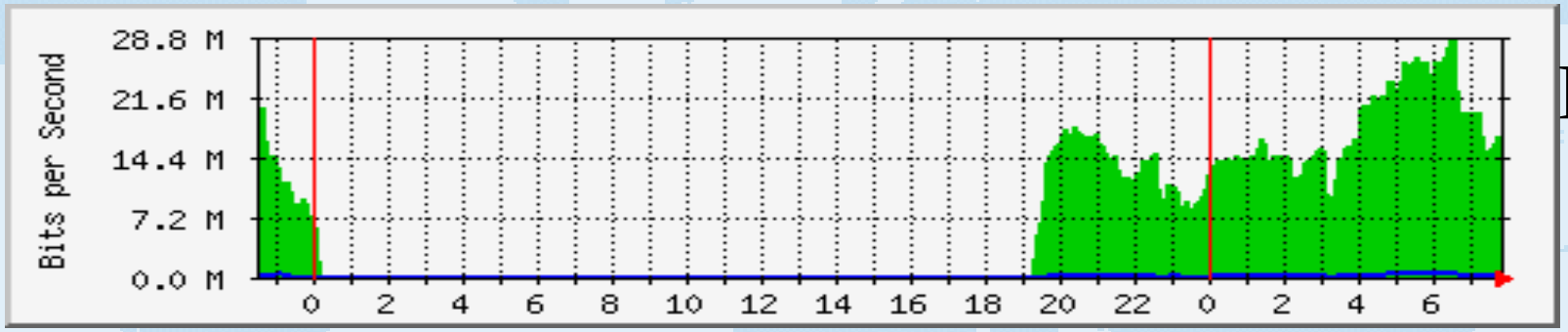
Network traffic in and out of the Data base host Velveeta



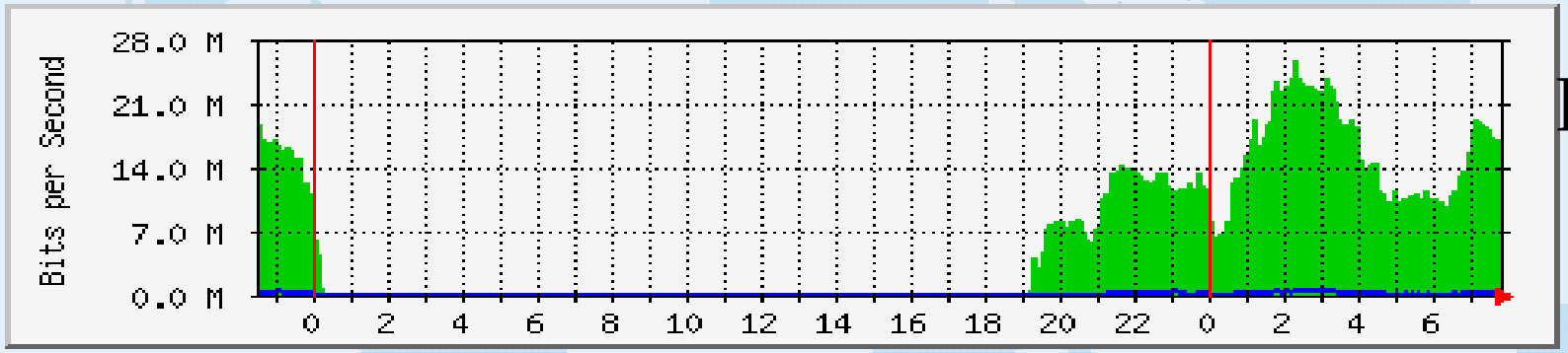
Green: serving OOHit data to worker nodes

Blue: receiving OODigis data from worker nodes

Network traffic out of the database server nodes



Popcrn40

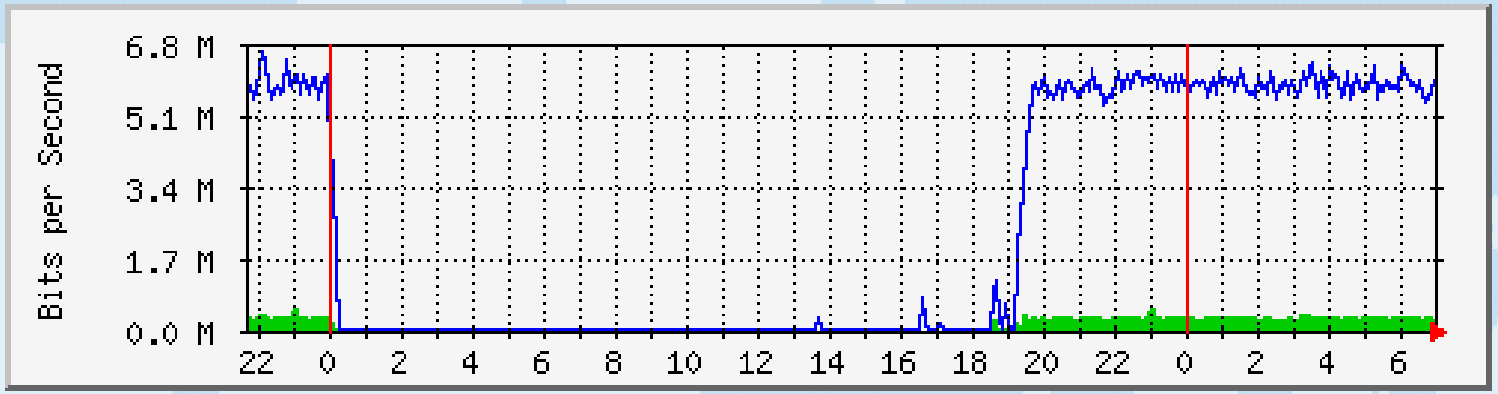


Popcrn39

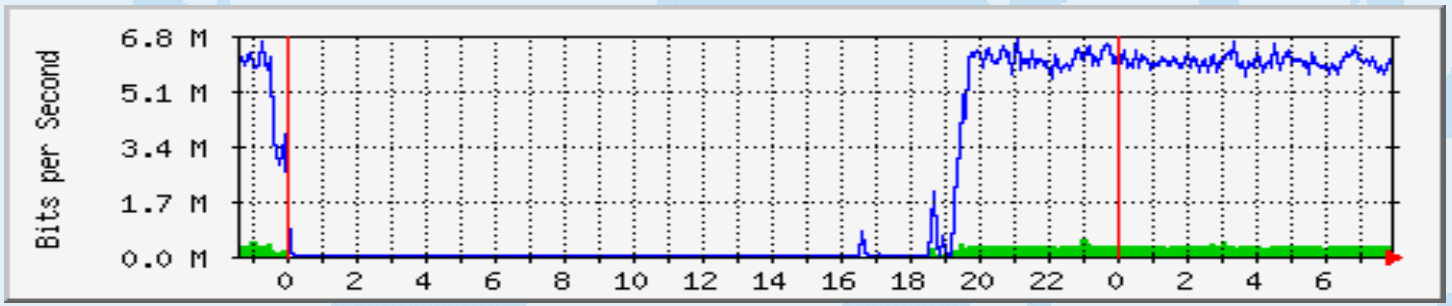
Green: serving OOHit pile up data to worker nodes

Pile up serving not a pure random proces, spikes prevent us from running pile up servers more efficiently.

Network traffic in and out of worker nodes (Digitization)



Popcrn2



Popcrn9

Green: writing OODigis data to Data base host (velvee

Blue: receiving pile up from pileup server nodes

Current Status

- **Upgraded to ORCA 4_4_0_optimised**
- **Pile up sample of approximately 500K events. Oohit formatted and split over the 10 popcrn server nodes**
- **Could run more than 50 pocesses writing into the data base**
- **Created User federation to access set OO_FD_BOOT to**

  cmsun1.fnal.gov::/usr/cmsun1/r4test/UserFederation/jet0900.boot

  At the moment contains only the hplus m400 sample with full pile up.

Current Status(cont.)

- REDO hplus m400, hplus m200 (full pile up)
- We are in the process of importing fz files from CERN.
- We have tools in place to duplicate data bases, delete selected files et. (thanks to Shahzad Muzaffar) scripts are CVS
- All scripts are in place to run production in CVS and tagged if some one wants to have a look at it.
- Over the weekend lots of problems with tape robot and couldn’t run production.

Current Status UCSD

- Configured their farm with cmsim120 and ORCA_4_4_0_optimised and PBS queueing system.
- Ran OOHits and populated database.
- Problems with GDMP right now it is faster to generate the pile up than to transfer it.
- Need assignment .

To do

- Get into production mode
- CMS coordination of production effort, we need assignments
- Validate (run ntuple makers etc.)
- Find better configuration so that less workersnodes are misused as pile up servers
- Upgrade hardware (e.g. Gigabit ethernet for servers)
- Make production scripts generally useful