Status of OO Production at FNAL

Hans Wenzel Fermilab

- Status of producion in general
- Status of other RC
- Status of OO Production at Fermilab

Status of producion in general

- We have established a biweekly production meeting (finally). Next meeting is next week!
  - CERN has lost access to production Farm
  - Strong need for Production Coordinator!
  - Regional centers requested to pick up some of the load! (for Jets/Mets that will be Fermilab,Caltech and UC SD.)
  - Some work under way to establish a Production system which wold wok on different RC (Meetings with Wisconsin, Caltech and FNAL)

Status of other RC

- Right now it looks like Fermilab is the only RC ready for OO production while CMSIM is no problem.

Status of OO Production at Fermilab

- Plenty of production data in enstore tape robot: http://home.fnal.gov/~cmsprod/monitor/report.html
- Data cards: http://home.fnal.gov/~cmsprod/Production.html
- In addition some extra samples requested by different members of jetsmet group e.g. Z−prime with different masses, tth, single pions with eta cuts, minimum bias for pile up.
- Production Hardware:
- 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.

Status of OO Production(cont.)

- 40 dual CPU (popcrn01−popcrn40). For Digis production 10 will be used as pile up server leaving the other 30 (60 CPU's) as worker nodes. Currently we have a sample of 420 000 minimum bias events.

OOHitFormatting (min bias)

- Massive data movement

Stage in FZ−files from Tape robot

↓

OOHit into Objectivity(VELVEETA)

↓

VALIDATE DB + CLEANUP

↓

SPLIT DATABASE
COPY TO PILE UP SERVERS

10 PROCESSES AT A TIME

BOTTENECKS:
FILE LIMIT FOR AMS
NETWORK

OOHitFormatting (data)

Stage in FZ−files from Tape robot

↓

OOHit into Objectivity(VELVEETA)

↓

VALIDATE DB + CLEANUP

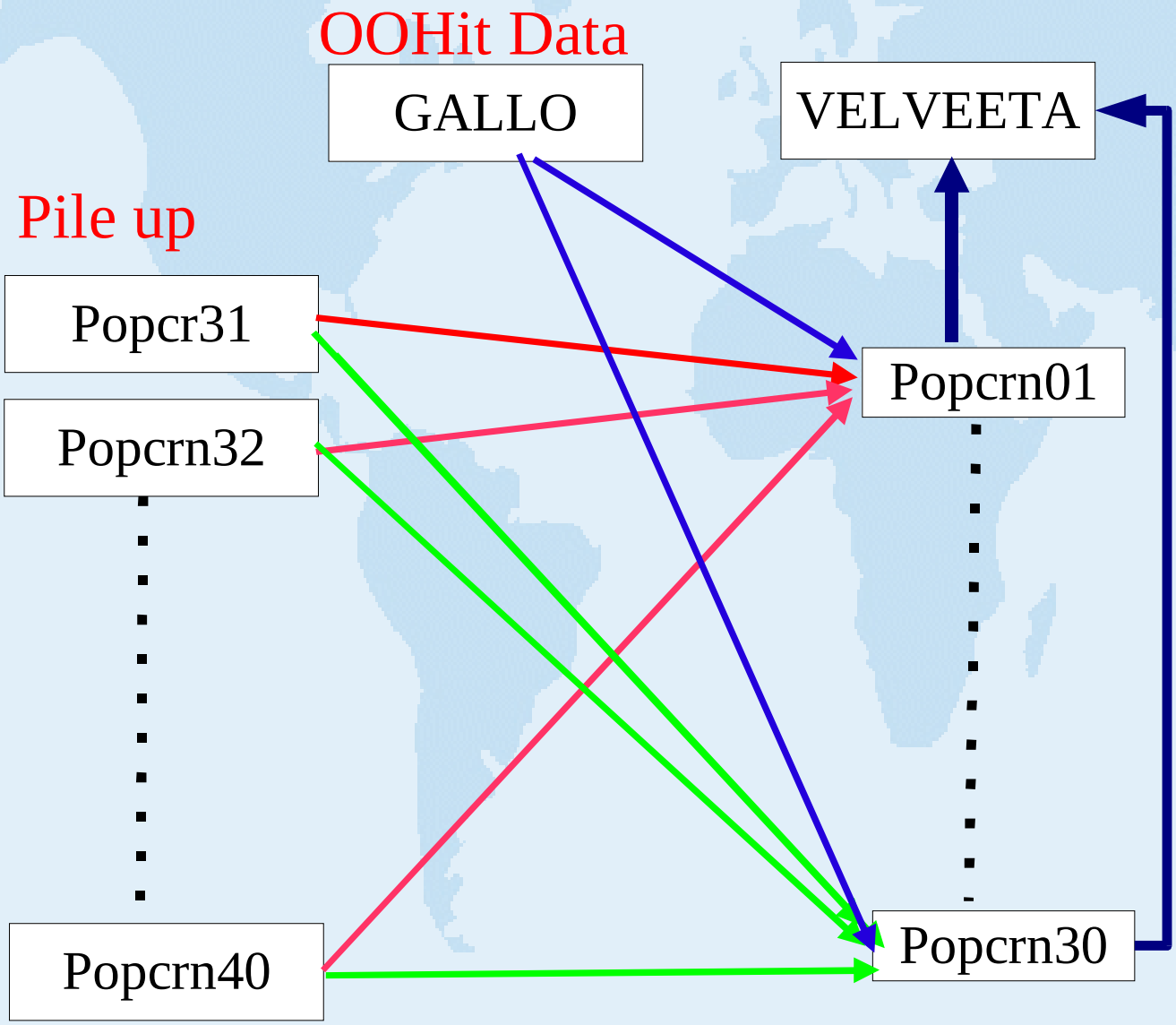
↓

SPLIT DATABASE
COPY TO GALLO

10 PROCESSES AT A TIME

BOTTENECKS:
FILE LIMIT FOR AMS
NETWORK

OODigis



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

Every one talks to everyone

Last Week

- Test run with 5 pile up servers (ORCA 432)
- 100 000 min bias events (had more but a failed tape drive killed 75 % of the sample)
- Monitor exactly what is going on network, database locks etc. Most of the info is on the www.
- Found we need more than 5 pile up servers
- Need to start AMS with file limits set higher (Linux 1024 not enough). Opening more threads doesn't help.
- DB hosts and Pile up servers should have Gigabit ethernet connections (investigating)

After the test

- Upgrade to ORCA 4_4_0 (redo to get new version with optimization switched on)
- Update batch system will have to kerberize the system in the next days
- Produced more pileup 420,000 (this is sufficient for signal samples but what about bgr.samples which have more than 150000 evts.)
- Today populate the min bias data base

After the test

- Tomorrow split min bias sample over the 10 pile up servers
- Then we are basically ready to run OODigis start with jm_hplus_m200 and jm_hplus_m400data sets

To do

- Need to define priority which data samples are most important to us.
- During production the Objectivity database n velveeta shouldn’t be accessed by users. So we need to duplicate the DB and create a user federation (CMSUN1 as host?)
- Validate (run ntuple makers etc.)