

Use of New DCAF /SAM Facilities at CDF

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for the CDF Grid group

What is being introduced

- New DCAFs at INFN/CNAF, Taiwan, Korea
- Reconfigurations and add-ons at Rutgers, Toronto, etc.
- Hopefully a new way to use off-site computing for CDF
- Explicitly oriented to the future

What works now

- CAF job submission via the command line and (soon) usual CAF gui
- SAM data transfer for modest-sized projects (test jobs, experts-only submission, etc.)
- User monitoring and output transfer

What doesn't work

- This isn't really (yet) the grid (no automatic load balancing, no discovery, infrastructure on a manual basis, etc.)
- No pre-cached equivalent of "golden data sets" at remote sites
- Some components still being written

DeCentralized Analysis Farms (DCAF)

- Goals:
 - This summer 25% computing offsite
 - Next summer 50% computing offsite
- Current Status (MC):
 - Users can run Monte Carlo at 4 sites right now
 - Submission through standard CAF GUI interface
 - Full access from worker nodes to FNAL filesystems
icaf: work same as local
 - Each site has its own monitoring page
- Summer Plans (beyond MC):
 - SAM to access data files in testing at all sites
some data flow issues limit general usability
 - Some sites want to host copies of specific data sets in dCache

Analysis Farms Status

| Site | Now | | Summer | | Notes |
|------|-----|----|--------|----|-------|
| | GHz | TB | GHz | TB | |

Off-site Ready right now

| | | | | | |
|-----------|------|-----|------|-----|--|
| CAF | 1300 | 280 | 1300 | 280 | |
| CondorCAF | 1000 | - | 1900 | - | |

Off-site Ready right now

| | | | | | |
|--------|-----|-----|-----|-----|--|
| INFN | 250 | 3 | 950 | 30 | Priority to INFN users |
| Taiwan | 100 | 2.5 | 150 | 2.5 | General Use |
| Korea | 120 | - | 120 | 6 | General Use |
| UCSD | 280 | 5 | 280 | 5 | May host compressed h-stream data Can steal free resources for CMS! |

Hopefully summer

| | | | | | |
|-----------|-----|---|-----|---|-----------------------|
| Japan | - | - | 150 | 6 | General Use |
| Rutgers | 100 | - | 400 | - | Restricted use for MC |
| MIT | - | - | 200 | - | General Use |
| Cantabria | 30 | 1 | 60 | 2 | General Use |

- Canada and Karlsruhe also contributing but not through CAF infrastructure.

Plans and Responsibilities

- Offsite Computing Coordinator: *Alan Sill*
 - Coordinates software deployment
 - First contact for problems of offsite users and administrators
- DCAF software infrastructure and FNAL systems: *Elliot Lipeles, Igor Sfiligoi, Frank Wuerthwein*
 - FNAL user interaction
 - FNAL fileserves configurations...
 - CAF software
- CDF offsite software support: *Art Kreymer, Chuck Debaun*
- SAM data handling: *Rob Kennedy, Rick St. Denis, Valeria Bartsch, and others*
- Initial availability for Monte Carlo production by users official in coming weeks.

What to do now

- Submit MC and start to use!
- Send problems if any to me (first response) and to the SAM, CAF, and DH teams if needed for detailed follow-up
- Decide best method to store results (lots of help will be given here)
- Use cpus, find good physics, publish