

# Status of LaTech Institutional Analysis Center (IAC)

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# History: in the days of DORACE, established one of our Linux nodes as a Monte Carlo Production Farm server

- first purchased and installed a 125GB computer disk on the node (caps10) for Monte Carlo operations and to serve as a local SAM cache
- during June -July, 2002 installed and made operational the McFarm software package developed at UT-Arlington (UTA)
  - Key to the success of this endeavor was the work of our student system manager, Michael Wallis, and personnel at UTA



# Presently...

- have installed and maintained on our Linux computer cluster the current production versions of the DORunII software (P13.08.00)
- established one of our Linux nodes as an operational SAM Station
- Globus 2.2 installed
- Condor installed as batch system
- MC Farm setup complete
- Ganglia installed for online, real time monitoring of resources
- graphical display (McFarmGraph) accessible for updated MC job status display



# Manpower

- This work requires significant manpower. Presently done by ZDG, Michael Wallis, and, on Linux technical issues, Tony Forest. More manpower is required.
- Towards that end, ZDG submitted a proposal last July for DOE-Epscor support through a LaTech-Fermilab Partnership grant.
  - The grant would support a postdoc and grad student for 3 yrs...a big help!
- Another possible source of new manpower is the collaboration with other disciplines in our College, particularly CS.
  - Dr. Box Leangsuksan, an Associate Professor in CS, is interested in working with us if we can find a way to support research projects for his students. Professor Leangsuksan is an expert in grid technology, so his association would be a great development.

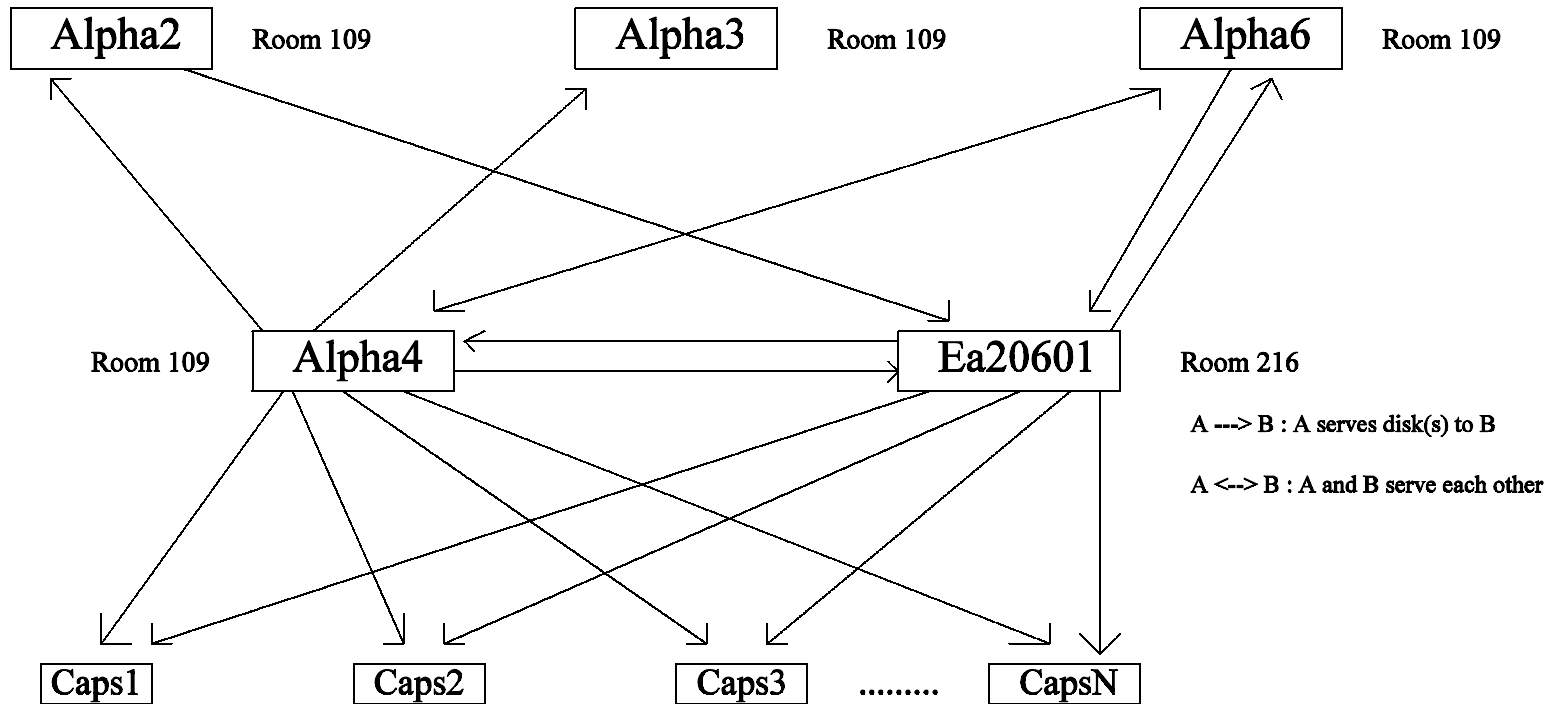


# Next Steps

- proceed with creating multiple analysis nodes within our Center for Applied Physics Studies (CAPS) Linux cluster. These are desktop computers caps1, caps2, ..., caps 11
- each of these will be made operational as offsite D0RunII analysis computers and Monte Carlo farm nodes



# CAPS Network Map (NFS mounts, services)



- Alpha2: Web server, inventory database server, CVS server, external remote login machine
- Alpha3: Print server for downstairs B/W HP4 printer
- Alpha4: Homes disk server, YP/NIS server
- Alpha6: Mail server, YP/NIS, POP3/IMAP access
- Caps1-Caps9, Caps11: Workstations sharing their data disks
- Caps10: Workstation sharing its data disk, Globus GRID access, Monte Carlo Farm production node and job server
- Thebeast: Print server for upstairs HP Color LaserJet 4500 printer
- Poot: Loghost (via syslog)
- Ea20601: Serves 120GB work disk (/work) and apps disk (/apps)



# Future Expansion

- We have the potential at LaTech to greatly expand our analysis capabilities. One possibility: link with another existing Linux network in our College: “Beodawg”
- CAPS has spent about \$10k on the beginning of a rack system: a rack with power and cooling and 2 dual processor CPU's.

