

# Parallel Network-RAM Project

## Report – March 23<sup>th</sup>, 2004

John Oleszkiewicz

### Experiments

- Almost reached target of collecting results from about 644 experiments
- Same categories as for ICPP (varied RAM, network bandwidth, etc.)
- Now six different PNR methods
  - Centralized
  - Client-only
  - Three “Backbone” variants
  - Local Managers
- Few straggler experiments should be finished by next week

### Thesis

- Non-results sections almost finished.
- Results/discussion sections in progress
- Formatting ok except for figures – working on that.
- Currently 62 pages of content (73 pages total)
- Early draft submitted to you by April 2<sup>nd</sup>? Thesis committee?
- Plan: convert thesis into paper for cse891, convert paper into journal article
- Copyright?

### Simulator

- Experiences segmentation fault or other errors rarely. This can usually be fixed by re-running with a different random number seed.
- New features not used in experiments
  - “Magic” broadcasting – servants can communicate without using the network
  - Tunable network RAM threshold
- Technical report will be updated before I leave
  - Should be a valuable resource for anybody who wants to use PNRSim.

### Future Work

- Collecting our own trace (with page fault information) would be valuable
  - Would be a modern system with modern parallel applications
  - Could compare how disk paging actually performs to how it is simulated to validate simulator
  - Could tune simulator to more closely mimic real process behavior