CptS 464/564
Lecture 30

1st May 2003

Final Exam Review

- Naming, Directory and Discovery services: what they are, how they differ, how they are used. Example naming services such as DNS and GNS. Semantics and replication issues in GNS.
- Distributed file systems: fundamental design choices; examples of those choices from AFS and NFS. Stateless vs Stateful servers.
- Distributed systems security: physical circuit vs. virtual circuit encryption; understand vulnerability+threat=risk equation; failures, errors and faults terminology; mechanisms related to preventing/managing intrusions.
- Distributed real-time: hard vs soft real-time; real-time scheduling – static vs dynamic, fixed priority vs dynamic priority, pre-emptive vs non-preemptive; role of representatives. Work arrival distributions and their implications for RT systems.
- reading data from CDF graphs; characteristics of the internet – bandwidth and delay distributions.
- Overlay networks: path length in the overlay; path length in the underlying network; robustness of overlays and fragility of overlays. Routing table construction in Pastry; message routing in Pastry. Distributed Hash tables. Grad students, don't forget that you are responsible for the Pastry and CAN papers.
- If I say "discuss" the truth or falsity of a statement I mean – show your reasoning about why it is true or false; if an assumption changes does the truth or falsity change. In other words, treat a "discuss" question as an invitation to show me what you know! To study for this kind of question: think beyond the mere facts and definitions to the implications of the facts and definitions.

Mentioned last time: professional societies. This time, your ongoing relationship with WSU.

I wish the graduating seniors well and urge you keep in touch with the deparment. Kathleen Warren and her role. These are trying times for public higher education. Alumni are even more important than in the past to making higher education available to new generations of students. Matching contribution by employers (E.g. HP, IBM, Xerox). Also employers are often generous on their own – the deparment receives equipment contributions by Intel, HP, Tektronix, Micron, Fluke Instruments and many others. When you're working for an up-and-coming company that is changing the landscape of CS or EE, consider how the company can contribute to the education of its future employees – equipment, expertise, internships, ...

Let your legislators and congresss people know how you feel.