

Fall Update from SCS Computing Facilities

1 November 2007

Summer and early fall are very busy times for us! Before the fall term begins, in addition to our day-to-day tasks, we work on two kinds of things: Preparing for the new term, especially the arrival of our new grad students, but also upgrading many of our servers and services for improved reliability and availability.

Here are some highlights of things we accomplished over the last few months.

- Presented **Immigration Course** talks in 5 sessions; to see the latest version of these talks, take a look at www.cs.cmu.edu/~help/downloads/introduction/ic_2007_slides.pdf.
- Acquired, built, and delivered **Grad PC's** (with UPS's) for the new grad students. This year, we built 86 systems: 68 dual-boot desktops, 12 Windows laptops, and 6 Mac laptops.
- Completed a new Linux port, **Fedora 7**, and used this in our Grad PC build. Contact us if you'd like to upgrade your system.
- Added support for **Microsoft Office 2007**; for details on using Office 2007, see: www.cs.cmu.edu/~help/windows/office2007.html.
- Upgraded many servers and underlying services; most of these upgrades happened in ways that were intentionally invisible--done with little or no interruption to you.
 - o Replaced **Monolith** and distributed its services across multiple servers on a new Windows server cluster.
 - o Added an **AFS server** and RAID array for additional capacity.
 - o Refreshed disk drives (new drives) on many **RAID arrays** for our most important services, especially email and AFS. We have 51 RAID arrays installed for our various servers.
 - o Added capacity to our **backup system**: upgraded one of the backup servers, expanded our disk cache by adding a 12TB fibre channel RAID array, and we purchased 10 more process licenses. We have more than 50TB of storage subscribed to our nightly backup service.
- Expanded success in **web application development**, especially with the grad student database (Black Friday), and the online admissions application for many programs in SCS.
- Added more extensive and more frequent updates to the **help pages**.
- Initiated the **IP Reallocation** project, in preparation for the Gates Building coming online.
- We shut down some old modems--the **33.6Kbps modem pool**, due to low usage. We continue to provide modem service via the 56Kbps pool. Note that for remote access to systems and services within SCS, the preferred paths are VPN and iPass, using the /remote instance of your Kerberos credentials. Contact us if you need help in using these services--the best time is before you travel!
- Survived a minor **flood** on August 30! Unfortunately, our experience base for dealing with "water incidents" is deepening.

- We see ongoing growth in **high-performance compute clusters (HPCC)**. **Condor** is the software used in nearly all of them at the moment.
- We continue to strengthen our automated **monitoring** of systems and services using **Nagios**. With each passing month, we are better able to notice anomalous conditions before they become interruptions to services. This is a work in progress.

Of course, we have additional upgrades and improvements underway. We'll update you about these at another time. All of these upgrades have the goal of improving the reliability and availability of our services to you. We welcome your feedback on these activities, especially requests or suggestions for specific improvements.

Finally, here are a couple of valuable **user tips**:

- **Empty your Spam** (or Junk Mail) folder! And, **empty your Trash** folder. Do this periodically, weekly or so; you will get better performance from your email program.
- We *strongly* recommend that you **do not upgrade to Microsoft Vista at this time**. Why? There are several third-party software applications that you may want to use that will not yet run on Vista. We expect this situation to change in the coming months. For details, see www.cs.cmu.edu/~help/windows/vista_scs.html. Also, please bear in mind that when you upgrade, you will encounter significant user interface changes: some things will not be where you expect them to be! Plan to spend time getting to know the new user interface.
- We are offering a **Mailman training session** (to manage your distribution lists) on Nov 9, 9:30-11:30; contact help@cs.cmu.edu if you'd like to attend.

For all of this and more, please contact us with your questions, concerns, and suggestions: email help@cs.cmu.edu, call us at x8-4231 (Help Center, M – F, 9 – 5), or x8-2608 (Operations, off-hours, 7 x 24), or walk-in and visit us at the Help Center, WeH-3613.

Thank you for using our services.

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