

SRCF system administrators' report

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Recruitment

Seven new sysadmins joined the team this year: Daniel Thomas, Andrew Lee, Tejas Guruswamy, Andrew Ryrie, Hauke Neitzel, Ramana Kumar, Daniel Richman and Andy Cooper. This is a significantly higher recruitment than in previous years, perhaps due to a streamlined recruitment process, and we hope that it will continue in future years.

Hardware

The failure of the SRCF UPS a few months into this year led to its replacement by a second-hand but fully functional 2200VA APC UPS, purchased by the SRCF. The loss of the old UPS was caused by sudden catastrophic failure of the battery packs. It may be possible to sell the old UPS on a 'for parts' basis; this has not been investigated.

Another hardware improvement was the upgrading of pip's memory to 32GiB from 12GiB; the memory was generously donated by Dominic Benson.

There have been several problems with the Tyan servers in the virtual machine cluster; 2 of the 5 of these intermittently fail to boot. The problem is still being investigated, but it may be fixable.

Upgrade to Ubuntu 12.04, Precise Pangolin

The latest long-term support version of Ubuntu was installed on the desktop service at the end of 2012; this provided many software updates to desktop users. The upgrade was installed to pip in January 2013; this provided more recent software to users of the shell service and web server. This upgrade also means that the SRCF's software will continue to be supported until at least 2017.

Virtual machines to support undergraduate research

Last term we were approached by Nicholas Ngorok and his supervisor Jon Crowcroft who needed several web servers on which to test his Computer Science Tripos Part II project, an anti-DDoS system. We have provided him with root access to five temporary dedicated virtual machines. This can be considered an initial trial of an idea we have been considering for a while: the provision of a limited number of virtual machines to individuals and societies, using resources freed up by the virtualisation of our main services.

Ongoing Projects

Recruitment: Although high recruitment this year has put the SRCF in a strong position for the next year or two, a lot of sysadmins will graduate in the near future, and good recruitment will need to continue

to counteract this.

Software development: We (specifically, mostly Ben) have been refactoring the diverse and disorganised set of scripts we use to maintain our services, bringing together common code into a Python library. Daniel is working on a system to try to detect outdated and insecure software installations in users' and societies' accounts, so that those responsible can be warned and will hopefully upgrade before a security incident occurs.

Hardware upgrades: We are currently working to replace earthquake (the storage server for our virtual machine cluster) which has served us well for the past few years but is increasingly suffering from disk performance and reliability problems.

Old hardware: There is some hardware owned by the SRCF which should be disposed of. We may be able to get some money for some of this.

Virtualization: It is planned to virtualize the web and shell servers at some unspecified future date, which would provide improvements in manageability hopefully resulting in increased uptime. This has been made possible by a generous donation from Third Light.