CS Department Network Administration

Randolph Langley
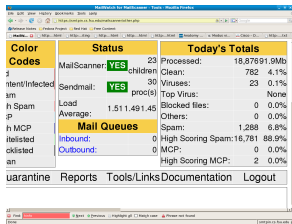
Department of Computer Science
Florida State University

August 19, 2009 / CS Faculty Workshop

Introduction
User services
Infrastructure
Summary

User Services Summary
Infrastructure
Hardware
In Sum

What user services do we provide?

- Email Services
- Web Services
- File Services
- Programming Environments (Linux and Solaris)
- General Shell Access
- Database Services
- Subversion and CVS Services
- Printing Services
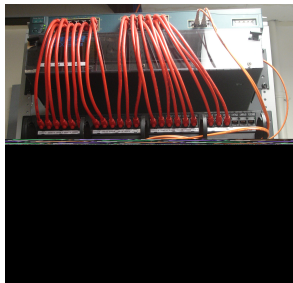- Windows Terminal Services
- Desktop Support

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What infrastructure services do we provide?

- DHCP
- Backup
- Research Backup
- Security Cameras
- Domain Controllers
- Spam Filtering
- Wireless
- Log server

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Many boxes, different environments

- 40+ servers
- Many routers and switches
- Lots of desktops
- Technology-enabled classrooms

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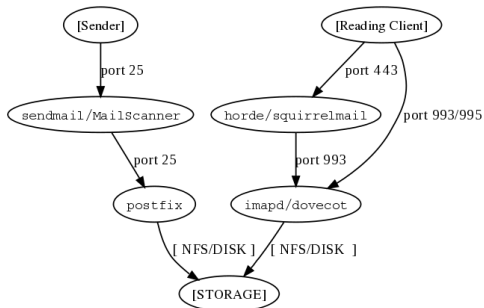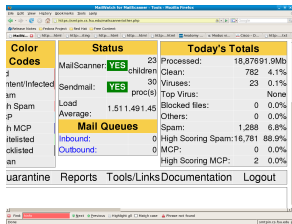Infrastructure
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People

- 1 Permanent A&P
- Several OPS graduate and undergraduate students who are serve as sysadmins and as webmaster
- Numerous Lab monitors

Overall Structure of Email Services

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Email
Web services
File services
How to use sshfs
Database services
Subversion and CVS services
Windows Terminal Services

Upgrades to Email

- sendmail/MailScanner
- sendmail uses RBLs, GreetPause, and denies hosts that have no reverse-lookup record (no SPF)
- MailScanner calls SpamAssassin
- SpamAssassin uses DCC, Razor, and RBLs

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Our webservers
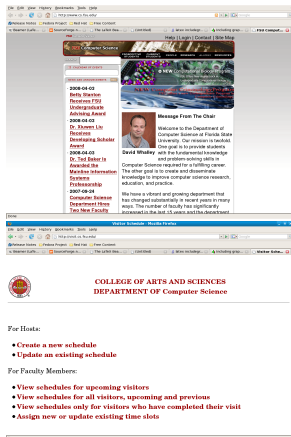
- websrv.cs.fsu.edu, supporting many, many virtual hosts:

  acm.cs.fsu.edu, msdnaa.cs.fsu.edu, www.cavis.fsu.edu, cybersec.cs.fsu.edu, saittest.cs.fsu.edu, fci.cs.fsu.edu, service.cs.fsu.edu, www.lens.fsu.edu, fsvision.fsu.edu, system.cs.fsu.edu, www.sait.fsu.edu, lit.cs.fsu.edu, webmail.cs.fsu.edu, www.aces.cs.fsu.edu

- websrv2.cs.fsu.edu, student pages

- visitwww.cs.fsu.edu

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Our fileservices

- NFS is widely used throughout the department
- I would like to see us move toward user-directed FUSE mounting using sshfs rather than system administrators configuring NFS on an *ad hoc* basis
- Not only is the maintenance much simpler for everyone, it also offers users far more flexibility in what filesystems they can have mounted

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Our fileservices

- sshfs syntax is very simple:

  sshfs

  langley@diablo:/home/faculty/langley

  mounts/diablo

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Our database services

- We offer MySQL on dbserv.cs.fsu.edu
- We probably overuse MySQL when such lightweight databases such as SQLite would probably be more than sufficient, and arguably more secure – there are no separate credentials to worry about when accessing SQLite.

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Subversion and CVS services

- We have a dedicated Subversion and CVS server,
- Please contact the systems group if you want to use it.
- We have CVS pserver set up on it, including an stunnel setup to make it somewhat more secure.

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Windows Terminal Services

- You can use csterm1 for Windows Terminal Services
- You can also use this from Linux with `rdesktop`
- This can save you from dual-booting or having two desktops.
- (Of course, you can also use virtualization to also save on desktop space; lately, I have been very pleased with VirtualBox (available for free at www.virtualbox.org)

Bits and pieces in the background

- Perhaps the surprising thing about "infrastructure" is that we do provide some security cameras, mainly for server rooms and labs, although we also have a camera in 208 MCH since the room is divided and we are also in and out a good bit.
- We have started using Zoneminder recently for our two IP cameras
- We also have added quite a bit of performance monitoring using Cacti

Backups

- Research backup is available on `rsbksrv`.
- You will have to use ssh key-pair to access it; I recommend that you backup with `rsync`.
- Full directions for generating keys are on my home page – summary: you run `ssh-keygen` to generate a key-pair.
- Once you have the key-pair, email me your public key (not your private one! ;-)
- `rsync` is easy and efficient to use

Summary

- We are in 208 MCH, across the parking lot from the Love Building
- Our network and computing environment is continually changing, so expect more changes