

Linux Faculty Advisory Committee

Sept 29, 2006

Faculty attendees

[removed for privacy]

Computing Services attendees

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We specifically asked faculty attendees about issues, use of physical facilities, current classes using Linux, trends, information they would like to have from us, and action items. We maintained a "general" notes board during the meeting; items from that board have either been added to the appropriate sections below or left in the general notes section.

Issues

We asked faculty attendees to write down issues that they would like to address/issues of concern. We then discussed the issues and grouped them as appropriate.

Social aspects

- Social aspects of Linux cluster at crunch time
- Pair programming/talking while in lab
- Facilitating group problem solving (informal)
- Promoting trans-generational info sharing
- Collaborative development space
- World peace

Continued access to Linux software (of all kinds)

Why change?

Hours/Time issues

- Hours open (our labs have restricted hours)
- Question support during odd hours
- Student development hours

Provide public resource for students in systems courses

Reasonable currency

Working between Linux & Windows

Enough seats

Occasional "class" reservation

Avoid monoculture

Facilities

We asked about the actual physical uses of the space and shared some of the cluster and Linux use data that we have already gathered.

- Collaborative learning
- students primary platform is Linux and they are using it
- sleep
- TA office hours
 - o often these are undergraduate TAs who have limited office space and what space they have has no access to computers
- homework
 - o one problem we see is that more students are using laptops - non-uniform environment - and what runs fine on their laptop won't run on the machines we test on
- code testing
 - o in many cases this can be solved with ssh

Current classes

- Mark Stehlik has offered to look over the list & then pass it around and get it back to us with good data

Trends

- Laptops
 - o laptop issues - what kind, what you're running, different kinds of Linux
 - o often takes "about a month" to stop getting homework that was tested on laptops but won't run on cluster machines - then the students learn
- People working between architectures (Mac/Win/Linux) - need to work in all
- 15-123 - C & unix tools - expanded from a mini to a full semester course (so will increase demand). The need may be satisfied by remote server model.
- More systems oriented offering may be down the road (right now major one is Parallel Computation)
- space trends - Gates building.
 - o SCS - 1 teaching cluster, 30 machines. Currently, SCS cluster in 5419 has 90 G4 iMacs and is used primarily by 100-level courses (100, 111, 123)
 - o CompSrv - 1 cluster, 40-50 machines.

Information faculty want to move forward

- Timeslices for Linux and cluster (Linux/Mac/Win) use
 - o cluster (Linux) vs. server logins
 - are servers being used because clusters (Linux/Mac/Win) are full?

- what do #s of logins, length of logins, #s of users, time distribution throughout day, etc. say (for servers and for Linux/Mac/Win clusters)
 - can we get software use?
 - student demographics - who is logging in to these machines?
- Strip CSW reservations out of cluster reservation data
- See reservations by department and by requested software
- What is the motivation for this change? Need a good idea of WHY the change should happen. Trend anticipation? Unmet needs? This needs to be understood.

Action items

- meet with students ([faculty member] has offered to help us locate students)
- explore surveying again
- look into contacting all faculty about teaching software requests, not just ones who have reserved clusters/requested software
 - there are deadline issues - planning and so on
- Send Mark Stehlik the classes spreadsheet

General notes

- maintaining virtual environments can be very difficult
- is linux server use so high b/c cluster is in use
- 5419 staffing times - limited hours compared to Computing Services clusters
- future in virtual environment
 - student bringing computing power
 - depends how well it works. in practice it is not there yet
 - only control ½ of the environment (will publishing a standard help? not really. things like windows patches being released mid-sem etc)
- MacOS vs Linux - how usable is this?
- why no dual boot?
- heterogenous computing environment is important
- software installations - how to request. many faculty may not know they can make software requests ("If it says cluster reservations, I'll ignore it because I don't teach in the cluster.")

Next Steps

- Student meeting (Oct). [faculty member] has offered to help us locate students for this.
- Another advisory committee meeting (Nov), with more statistics & data and the info from the student meeting.