

# EECS IT Spring '07 Update

*Anthony Joseph <adj@eecs>, CNIL Vice Chair*  
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*April 2, 2007*

**Computer Networking Instructional Labs (CNIL) Committee - Meets 2 x Semester**

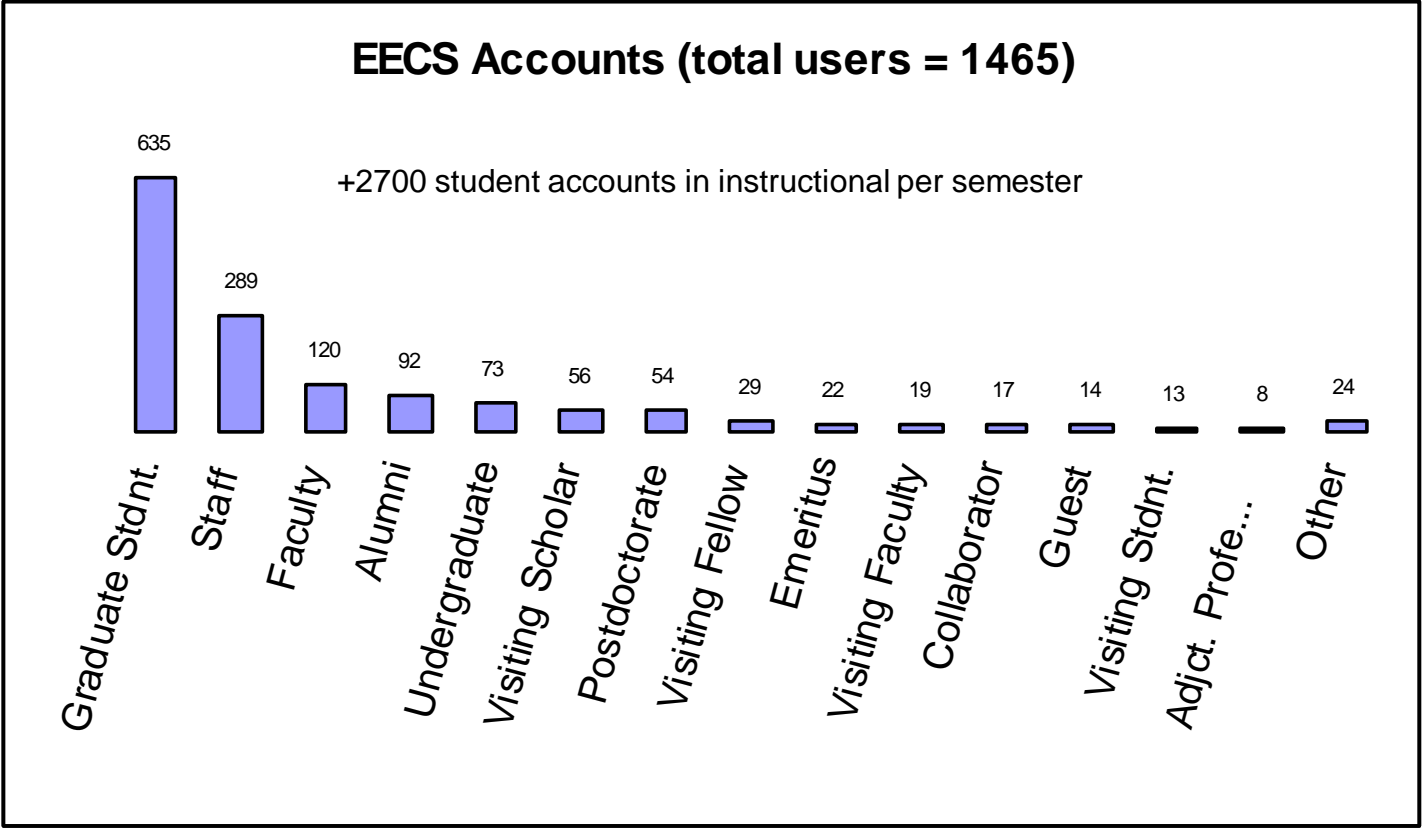
<b>Prof. Anthony Joseph (VC)</b> Eric Fraser Prof. Bernhard Boser	<b>Christopher Brooks</b> Prof. Ron Fearing Prof. Dan Garcia	<b>Prof. David Messerschmitt</b> Prof. Kris Pister Prof. Doug Tygar
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**Functional Groups**

<b>Helpdesk</b> Managers: Ann DiFruscia and Phil Loarie
<b>Computer User Support Group (CUSG)</b> Manager: Lars Rohrbach
<b>IRIS Purchasing and Administration</b> Caitlin Dey-Ward and Rachel Tibbetts
<b>Instructional Support Group (ISG)</b> Manager: Kevin Mullally
<b>Information Management Group (IMG)</b> Manager: Rob McNicholas
<b>Infrastructure Development Support Group (IDSG)</b> Manager: Michael Bordua

# Who are you?



## Where are you?

- Cory 732
- Soda 457
- BWRC 88
- Other 127

## What do you use?

- WinXP 2,406
- Linux 727 (+500 CC)
- Win2K 602
- MacOSX 344
- Solaris 171
- Other 674 (222 printers)

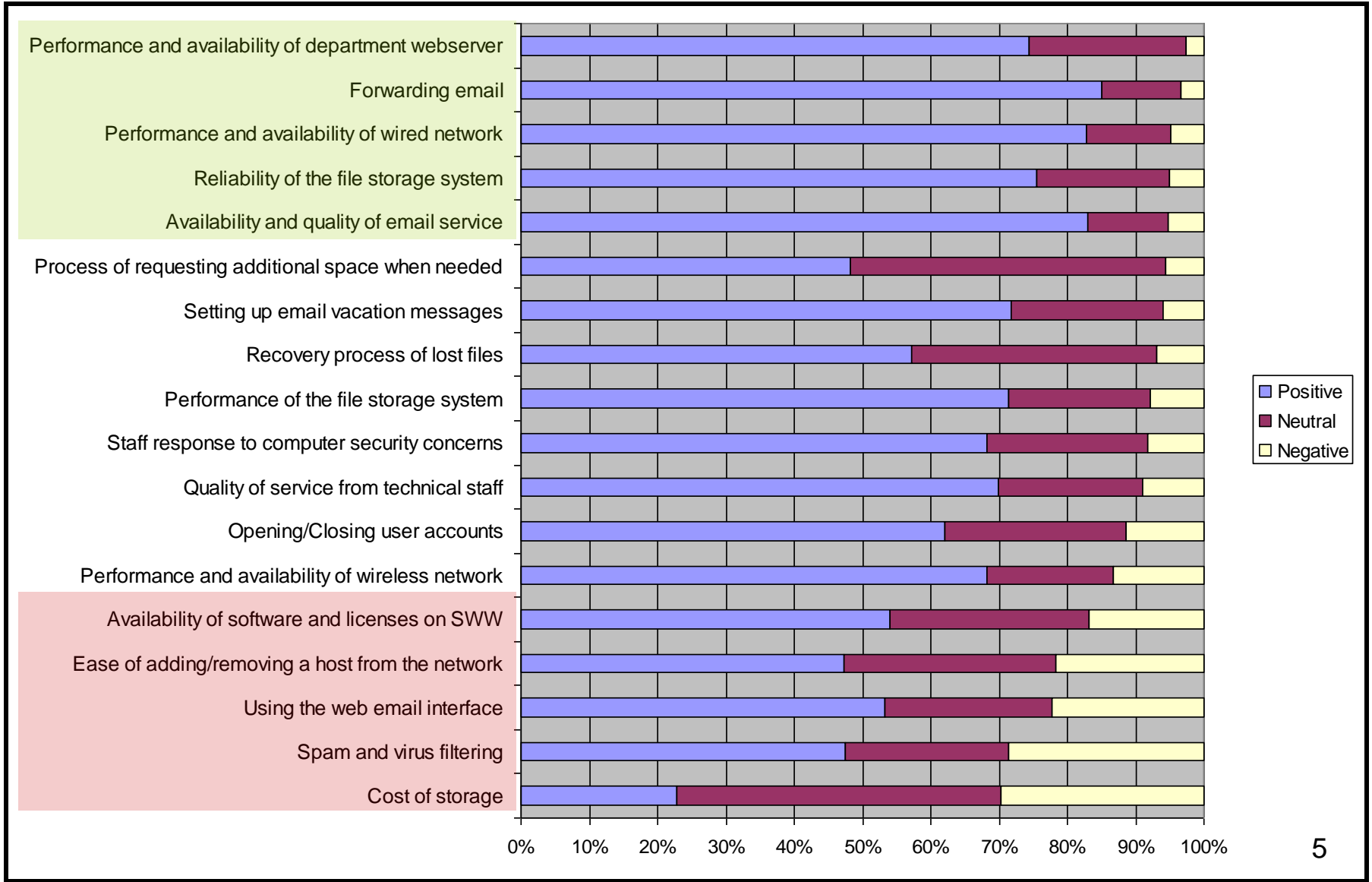
# EECS IT Survey Results

Results Summary at:

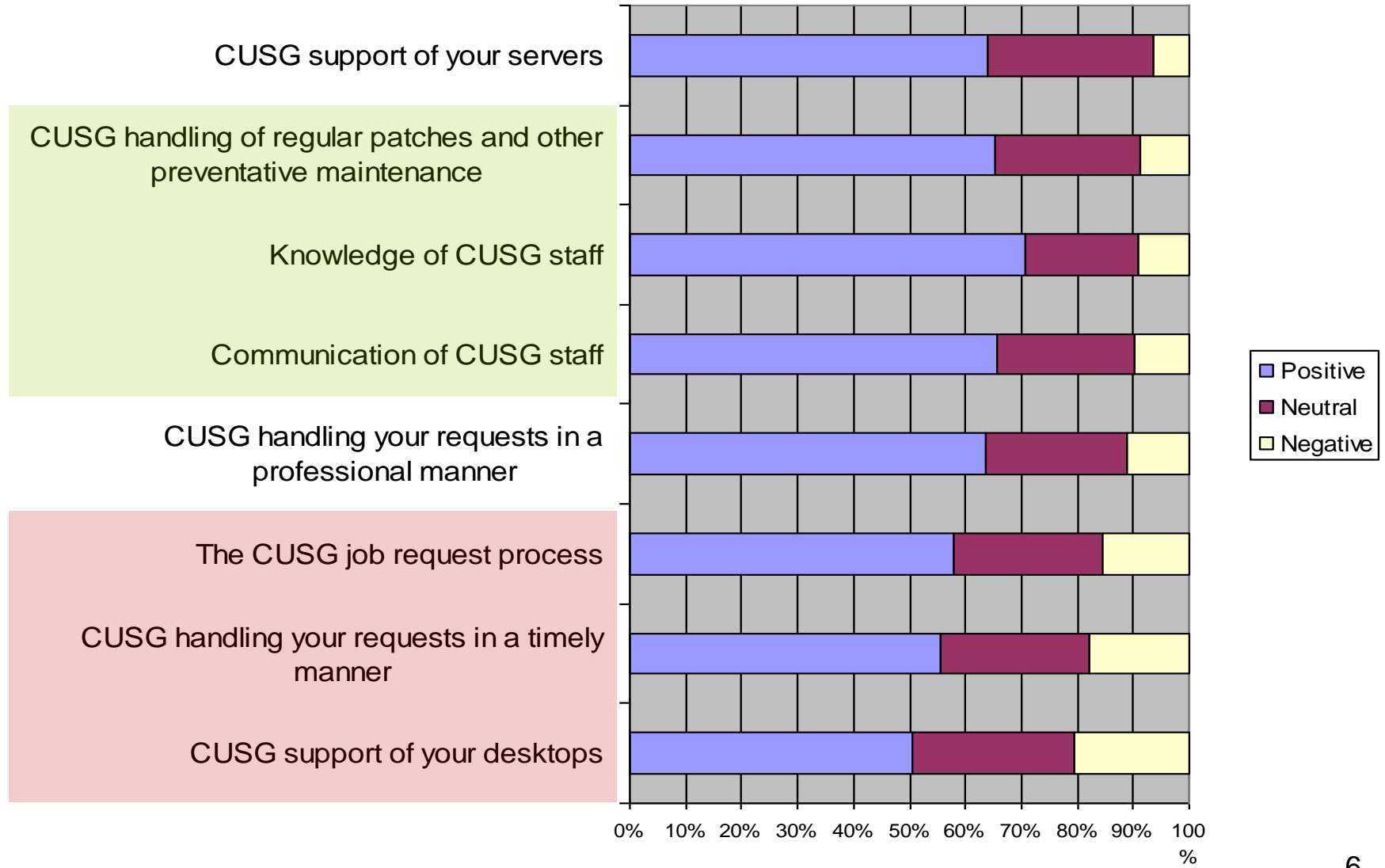
<http://www.surveymonkey.com/Report.asp?U=276217281939>

- Survey was sent out to all EECS users except Instructional Accounts (will be done separately)
- There were 448 responses (32% response)
- Too much to cover everything here
- ~68% of users manage their own machines
- ~19% have never used the helpdesk

# EECS IT Survey Results - Core Infrastructure



# EECS IT Survey Results - CUSG



# EECS Helpdesk

- Central point of contact for computer support within the EECS department
- `help@eecs`
- 642-7777
- 395 Cory, 313 Soda
- Software loan library
  - OS, Office, Matlab, Mathematica

# CUSG

- System Administrators for hire
  - Annual contract support of desktops and servers, as well as printers
  - Time & Materials job requests also accepted
- Supporting Windows, Solaris, Linux, and MacOS
  - OS installation and configuration
  - Software help, patching, security, monitoring
  - Labor for warranty repair
  - Troubleshooting and technical advice

*Don't fight the system – let us fight for you!  
You do research, while we attend to your machines*



# IDSG Networking Update

- 2006/2007 On-going core network upgrade
  - Upgrade Core Switches in Cory and Soda to 10 Gig
  - Upgrade EECS Firewalls to 10 Gig
  - Upgrade Campus Edge Switch to 10 Gig
- 2007/2008 Wireless Network Upgrade
  - Production EECS WLANs now inside firewall
  - Weekday peaks: 800 + 100 mesh users
  - SSIDs: “EECS and EECS-11a”
  - We Are Investigating 802.11n (late 2008 – 5.2 Ghz)
- 2008/2009 Edge Network Switch Upgrade
  - Closet Switches For Desktop Connections @ 1 GB/Sec

# FireEye Appliance

- FireEye Is An Anti-Malware Security Appliance
  - (Windows Only Today)
- Wireless traffic mirrored to appliance
- All Traffic Run Against Virtual Machines
  - Approx 10-20 VMs Built Up And Torn Down On The Fly
- Info about compromised VMs are pushed to wireless controllers and compromised clients contained

# UC Berkeley Mesh

- Experimental Pilot Program
- Collaboration Between EECS/IST/Cisco
- Primarily Outdoor Coverage
- Client Support For 802.11b/g
- Mesh Backhaul Uses 802.11a
- Currently 2 WLANs supported
  - EECS
  - AirBearsBeyond



# Cory Hall

- **RAP  
Installation**



# Wheeler Hall

- **MAP Installation**



# IDSG Storage Update

- New features
  - *Significantly lower cost*
  - Expandability, easier maintenance, and flexibility
  - New support for Research needs
    - Scratch storage
    - Direct host access
  - Other cost models (e.g., no backup)
- No change in user experience
  - Coeus, project, imap

# New Information Management Group Services

- IRIS web site redesign
  - Common tasks now easily accessible
- Mailing list manager – Sympa (<https://lists.eecs.berkeley.edu/sympa>)
  - Open source mailing list manager
  - Moving department lists there
  - Anyone in EECS can create/manage lists
- Instant Message server – Jabber / XMPP ([jabber.eecs.berkeley.edu](http://jabber.eecs.berkeley.edu))
  - Open protocol, compatible with Google Talk
  - Tied to existing EECS infrastructure – no need to create a separate account



# Ubiquitous Wireless Network Proposal

- COE proposal to Campus Technology Committee for complete indoor and outdoor coverage of COE buildings and area
  - \$500K request with COE cost sharing
  - CITRIS building as wireless-mostly environment
- Joint effort between COE, CITRIS, AirBears, and EECS
- Would cover roughly 9,000 faculty, staff, and students

# Industrial Funding Opportunities

- Intel:
  - Major donor (\$180K out of \$610K request)
    - New faculty funding
    - Separate donation of faculty leave for multi-core courseware development
  - New focus on multi-core architectures
- Google:
  - Donating funds to purchase 40-node instructional computing cluster
- Others:
  - Microsoft, IBM SUR, Sun, Apple, Dell, ...

# Government Funding Opportunities

- NSF CISE Computing Research Infrastructure Grant (Summer 2007)
  - Up to \$2 million
- Challenges:
  - Very limited funding in '06
    - \$22M in funds vs \$200M in requests
    - Shift in focus to boosting infrastructure
  - Internal (UCB) or external (community) focus?
    - Broader impact is important
  - Need coherent cross-department tie in
    - CITRIS or TRUST?

# *Unapproved* Fee Structure Changes

FEE Structure	Fiscal Year 2006-07	Fiscal Year 2007-08	% Difference
<b>CIS - Full User</b>	\$75.50/month/user	\$76/month/user	<b>1%</b>
<b>Collaborator</b>	\$25.00/month/user	\$25/month/user	<b>0%</b>
<b>Emeritus</b>	\$12.00/month/user	\$12/month/user	<b>0%</b>
<b>ICF - Resident</b>	\$9.75/month/user	\$12/month/user	<b>23%</b>
<b>Non-Resident</b>	\$2.50/month/user	\$3/month/user	<b>20%</b>
<b>Storage</b>	\$4.50/GB/month	\$3/GB/month	<b>-33%</b>
<b>CUSG - Desktop</b>	\$890/year	\$900/year	<b>1%</b>
<b>Server</b>	\$2670/year	\$2700/year	<b>1%</b>
<b>Time and Materials</b>	\$94.50/hour	\$95/hour	<b>1%</b>