Subnet Managers Meeting

Wednesday, March 27, 2013

Do you think the Mayans should have outsourced their calendar?
Agenda

• HP Agreement – Dave Carpenter, CAHS
• IS Application Update – Alan Hill, IS
• VOIP Update – Dave Hoffman, Telecom
• RAMtech Licensing / Renewal Update – Diane Noren, RAMtech
• RamCT Update – Kevin Nolan, ACNS

3/27/2013
Agenda (cont.)

- Middleware Update – Randy Miotke, ACNS
- Windows Staffing Update – Joe Volesky, ACNS
- UNIX Staffing Update – James Cizek, ACNS
- Network Operations Center – Greg Redder, ACNS
HP Agreement Update

Dave Carpenter, CAHS, CTAC

• HP Computer delivery
  – Should be 5 – 10 business days

• Concerns? Contact:
  – CSU Purch: Frank (Louise) Krappes
    Louis.Krappes@ColoState.EDU
  – HP: Frank.Coyle@hp.com

3/27/2013
IS Application Update

Alan Hill, Information Systems

• April 21, 2013 Upgrades
  – **HR App upgrade**
  – 2 – 3 days down time

  – **Banner upgrade**
  – Down on this day
IS Update (cont.)

• Curriculum Catalog App move
  – Will be able to pull directly from Banner

• ODS Access Request
  – Will move from paper to online.

• Vista + Reporting upgrade
  – Will allow LDAP login

• Ellucian (Banner) Mobile
  – Will provide mobile access to self serve apps.

3/27/2013
IS Update (cont.)

• Java 7 and IS Apps
  – Should work now with HR
  – Banner needs update and patch for Java 7 to work.
VoIP Project Update

Dave Hoffman, Telecom

Unified Communications

Voice

Mobile

Video

Presence

Email

Instant Messaging
2143 VOIP phones Installed
Moving Phones

• Moving your telephone requires a Service Order to be placed.

• Most requests can be completed in 5 business days.
  – This is required for both analog and VoIP telephones in order to comply with e911 regulations ensuring emergency responders will arrive at the correct location when someone calls 911 from a particular telephone.
VOIP

Charges

• There is a $56 fee associated with moving an analog telephone

• There is no fee associated with moving a VoIP telephone

• There will be a $56 fee assessed if you move a VoIP telephone without placing a service order
# Upcoming VOIP Schedule

**April- May 2013**

<table>
<thead>
<tr>
<th>Location</th>
<th>Date</th>
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<tbody>
<tr>
<td><strong>Wagar Hall</strong></td>
<td>Thu 4/3/13</td>
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<tr>
<td><strong>Clark</strong></td>
<td>Fri 4/30/13</td>
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<tr>
<td><strong>1413 S. College</strong></td>
<td>Mon 4/30/13</td>
</tr>
<tr>
<td><strong>Forestry</strong></td>
<td>Wed 4/9-10/13</td>
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<tr>
<td><strong>Natural Resources</strong></td>
<td>Wed 4/16/13</td>
</tr>
<tr>
<td><strong>MAC Gym Move-In</strong></td>
<td>Mon 5/20/13</td>
</tr>
<tr>
<td><strong>706 College Ave (LSC)</strong></td>
<td>Mon 5/20/13</td>
</tr>
</tbody>
</table>
Upcoming VOIP Schedule (cont.)

Lory Student Center-North  Fri 5/10/13
Lory Student Center Move Out  Fri 6/01/13
Drake Center (Old Steele's Mkt)  Mon 5/13/13
1220 S. College (LSC Marketing)  Tue 4/30/13?
Morgan Library  Mon 5/20/13
<table>
<thead>
<tr>
<th>June 2013</th>
<th>July 2013</th>
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</thead>
<tbody>
<tr>
<td>Board of Governors</td>
<td>Centennial Hall</td>
</tr>
<tr>
<td>Visual Arts</td>
<td>Engineering II</td>
</tr>
<tr>
<td>Green Hall</td>
<td>NESB</td>
</tr>
<tr>
<td>Computer Science</td>
<td>Moby Gym</td>
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<tr>
<td>Shephardson Hall</td>
<td>Beam Lab (ABL): Foothills Campus</td>
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<tr>
<td>Sage Hall</td>
<td>Admin Building</td>
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<tr>
<td>August 2013</td>
<td>September 2013</td>
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<td>------------------------------------------</td>
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<tr>
<td><strong>UCA</strong></td>
<td><strong>CDC</strong></td>
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<tr>
<td>Eddy Hall</td>
<td>Ammons Hall</td>
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<tr>
<td>Parking Services (Garage)</td>
<td>Education</td>
</tr>
<tr>
<td>Laurel Hall</td>
<td>Aylesworth Hall</td>
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<tr>
<td><strong>October 2013</strong></td>
<td><strong>November 2013</strong></td>
</tr>
<tr>
<td>Pre-Construction Building</td>
<td><strong>A-Z</strong></td>
</tr>
<tr>
<td>MRB</td>
<td>Military Sciences Building</td>
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<tr>
<td>Physiology</td>
<td></td>
</tr>
</tbody>
</table>
Upcoming Schedule (cont.)

- **December 2013**
  - Vocational Education
  - University Square Building
  - Gifford Hall
  - Plant Sciences
  - Environmental Health

- **Q1 2014**
  - Foothills Campus
  - Housing Infrastructure
Licensing Update

Diane Noren, RAMtech

• Microsoft:
  – Select renewal in process.
  – Campus Agreement – FTE counts needed by April 30, 2013.
RAMTech Licensing (cont.)

• Qualtics Site License
  – Demand increasing
  – Will have sep. meeting to discuss possible site lic.

• Four Winds Site License.

• Adobe – new Site License
  – Subscription model

• Symantec
  – Please make sure you have paid for 1012 – 2013 licenses.
RAMTech Licensing (cont.)

• Mathematica – renewal in progress

• Office 365
  – Cloud base application.
  – Agreement would need to be signed

• Windows 8
  – See RAMTech for info on campus agreement or select.
RAMTech Licensing (cont.)

• Red Hat Linux License (James Cizek, ACNS)
  – Change in current agreement
  – Complicated – working through
  – Need to purchase from vendor:
    • DLT or Insight

• Questions: Contact James
RamCT Blackboard Update

• Kevin Nolan, ACNS

OLD RamCT officially goes away May 31.

RamCT Blackboard:
• SP 9 applied Jan 2, 2013.
• Grader
  – import exam scores to RamCT pilot.

• Testing SP 11
  – Go or No Go
  – Timing

3/27/2013
Middleware – Randy Miotke

• CSU Federation update.
• eID password rule change.
• Lifetime email for CSU grads
eID Password Policy Change

• Starting April 1

• Password minimum length 15 characters 30 max

• No complexity requirements

• Dictionary and password history check

• Name, ename not allowed in passwords

• 14 failed authentication attempts will result in a 1 hour lockout

• Yearly password refresh all populations
Federated Authentication

• CSU Federation in production early April
  – Allows for easier management of SP metadata
  – Federation metadata is signed

• Shibboleth IdP and eduPerson directory upgrade
  – New software version
  – eduPerson schema modifications (newest version)
  – Research and Scholarship metadata
  – Target end of April or early May
Lifetime Email for CSU Graduates

• Council of Deans initiative
• Accounts to be automatically provisioned
  – Undergraduate
  – Graduate
• First.LastYY@alumni.colostate.edu
  – In case of name collision fail over to ename
• Will begin with spring 2013 graduates
Welcome Bill Becker to the staff!

InCommon SSL Certs
- CSU can use this service for free
- Plan to have webpage with form
  - For now, contact: certadmin@colostate.edu

Windows 8 Adoption
- Slow; not many depts. going to this OS yet.
UNIX – James Cizek

• Welcome to the Group:
  Jeremiah Baughman
  Wayne Hall
NOC
(Network Operations Center)
Greg Redder

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HOW TO USE PGP TO VERIFY THAT AN EMAIL IS AUTHENTIC:

LOOK FOR THIS TEXT AT THE TOP.

-----BEGIN PGP SIGNED MESSAGE-----

HASH: SHA256

HEY,

FIRST OF ALL, THANKS FOR TAKING CARE OF IT IF IT'S THERE, THE EMAIL IS PROBABLY FINE.

http://xkcd.com/1181/
Agenda

• Traffic Stats
• Wireless update
• Building progress/update
• Public and Private IP space
• Research LAN
• Google Peering with FRGP
Traffic Stats

- Internet Outages: none since last meeting

- BiSON ring to be broken on West side! Stay tuned...

- Exceeded 3Gbits/sec from the Internet – new peak!
Wireless update

• Additions/upgrades
• csu-net5
Wireless update
Additions/upgrades

• Konkel House (1400 block of South College) (building project)
• ERL (building project)
• Washington School (building project)
• Drake Hall addition (building project)
• E2 (building project, in progress)
• Advanced Beam Lab (building project, in progress)
• New NAT boxes
Wireless update
csu-net5

Smother, stronger, better.
csu-net5 is ‘live’ in Morgan
If you can see it, click it.

Devices that are not 5GHz capable will not ‘see’ csu-net5.
See the Library Help Desk for questions and support.

Now in Clark, Morgan, Eddy, Engineering, BSB, LSC, TiLT, USC, Glover, CS.
Wireless Update
Cisco APs

- Cisco APs (EOL)
- We can reboot them, but that’s about it.
- No spare parts on hand.
Wireless Update
AirPlay (not!)

• LAN based protocol

• Workarounds pending but not until this Summer!

What does this mean: IT WON’T WORK ON CAMPUS (RELIABLY)!
Building update
(Network Operations Policy and CIC update)

Buildings completed since last meeting in November:

• CDC (building project)
• NRRL (VOIP and CIC funding)
• Wagar (VOIP and CIC funding)
• NR (VOIP and CIC funding)
• Forestry (VOIP and CIC funding)
• ERL (building project)
• Drake Hall addition (building project)
• Microbiology (VOIP and CIC funding)
• Pathology (VOIP and CIC funding)
• TiLT (VOIP and CIC funding)
• Konkel House (building project)
Network Operations Policy and CIC update
Building update

Pending (by end of May)

• Shepardson (VOIP, department funding)
• 1413 S. College (building project)
• LSC Moves and LSC North rework! (building project)
  – Morgan Library
  – 1220 S. College
  – 706 S. College
  – Drake Center
  – MAC Gym
  – Glover
Network Operations Policy and CIC update

Building update

- Configuration clean-up
  - Better support for multicast
  - Consistent and thorough monitoring of switches across campus: Traffic, Latency, Uptime

- Efficient utilization of switch inventory across campus
  - Better management of spares
  - Planning!

- Better network performance/uptime allowing NOC to be proactive:
  - Loop protection!
  - Fan & power supply failures
Public and Private IP space
Status

IPs running low
- Freeing some up with new NAT boxes
- Engineering and Housing condensing and NAT’ing to help. CAHS next in line.

Next steps:
- 1st step: NOC generates usage report on existing IP space.
- 2nd step: Better utilize what exists.
- 3rd step: NAT
- 4th: New IP allocation if available (IPV6 – very long term)
Public and Private IP space
Usage

Non Routed Private IP Space
• Private IP space for LOCAL LANS only!

• Never should be routed!!

• 192.168.X.0 /Y where X matches the department/college subnet range and Y matches their public mask. (The VLAN should be their public LAN VLAN number plus 1000 where possible.)
Public and Private IP space Usage

Routed Private IP Space: If a department needs to route private IP space below are the conventions:

- 10.1.X.0 /Y where X matches their subnet range and Y matches their mask public mask.
  or
- 10.X.0.0 /16 where X matches their subnet range for /16 networks

- Since these networks will touch the core routers, we will need to assign an unused VLAN for each case.

- We can not route any subnet that steps on another departments private space.
Public and Private IP space
Usage

Some commonly used 10 addresses on campus:

• Wireless: 10.82, 10.83, 10.84

• NAT’d labs: 10.1
10G Research LAN

On Campus:
• Separate “Research LAN”
  – Only systems capable of generating 10G streams
  – Will be isolated from client desktops – machines will route to this network

Internet:
  – Dynes (Dynamic Network Systems)
  – Dedicated 10G to FRGP and 2G to Research Sites/Campuses via Internet2

PDI notes: http://prezi.com/ynahvyntqnxz/research-lan-pdi/?kw=view-ynahvyntqnxz&rc=ref-2581542
Google & Netflix and FRGP

- Google peers with FRGP
- FRGP installs cache for Netflix
Thank you on behalf of the NOC:

- Richard Duffy (routing/switching)
- Steve Lovaas (security)
- Scottie Dawson (security)
- Jim Farnell (wireless)
- Kyle Haefner (VOIP)
- Nic Garrison (switching)
- Robert Remsik (switching)
- Steve Banghart (infrastructure, wireless, switching)
- Greg Redder (routing/switching)
Almost done!

Other Topics?

Next Subnet Managers Meeting:
Wednesday, May 15, 2013
10 AM – Noon
LSC 203 - 205