CSU Subnet Managers Meeting

Wednesday, July 23, 2014

Almost dog days of Summer!
Agenda

• MS Office 365 – Scott Baily/Lance Baatz

• Innova EVS – Scott Baily

• DNS Server Update – Mike Willard

• Globus Launch – Jeremiah Baughman

• VOIP Update – Kyle Haefner

07/23/2014
Agenda (cont.)

• Moving From RamCT to Canvas – Kevin Nolan
• Security Update – Steve Lovaas
• Network Operations Center – Greg Redder
Office 365 Update

• Office 365 Contract Status Update – Scott Baily

• Office 365 Service Overview – Lance Baatz
MS Licensing

• Internet2 and MS O365 licensing is done!!
• Licensing for Office suite has been out of compliance in many areas
• In VY14, campus spend was over $400K/year, and still not compliant
• Significant risk – recall CU Denver audit result costing ~$1m/yr.
A New Model to Consider

- Opportunity to license Office for all fac/staff
  - Part of our move to Office 365
- Simplifies: Licensing & Office 365 deployment
- MS License renewal was due June 30, 2014
  - So needed to act very quickly
Benefits

• Covered faculty & staff, and all students would be eligible to download 5 copies of MS Office
  – For any device (Mac, PC, iPad, phone)
  – Very significant costs savings here

• Guaranteed 99.9% uptime SLA

• Unlimited email archiving and legal hold capabilities

• Ensures compliance because it is FTE-based

• Greatly simplifies the annual licensing exercise
FY14 EES (formerly Campus Agreement) Licensing

• Most areas license Windows Upgrade / CALs / Office via EES on formula-based FTE count

• FY15 EES Enrollment numbers:
  
  Desktop Core Bundle ($53.98): 3,935
  Enterprise Bundle ($67.47): 1,771
  Office Only ($25.60): 738

• FTE formula under EES:
  Full Time Faculty + Full Time Staff + (Part Time Faculty / 3) + (Part Time Staff / 2)

• Only “Information Workers” are included in counts
FY14 EES (cont.)

• Desktop Core Bundle includes:
  – Core CAL Suite
    • Windows Server CAL
    • SharePoint Server CAL Standard
    • Exchange Server CAL Standard
    • System Center Configuration Manager CML
    • Lync Server CAL Standard
    • System Center Endpoint Protection (AV)
  – Microsoft Office Pro Plus
  – Windows Enterprise Upgrade

• Desktop Enterprise Bundle includes:
  – Desktop Core Bundle (i.e., all of the above)
  – Enterprise CAL versions for Exchange, SharePoint, Lync

• Office Only includes Office Pro Plus – no CALs or Windows Upgrade rights
Proposed Licensing Model

• Hybrid on-premises (EES) + Office 365 cloud model

• New model pricing (guaranteed for 3 years, includes a 45% discount from Microsoft) per FTE:
  EES Core CAL Suite: $9.98
  EES Enterprise CAL Suite: $16.59
  EES Windows Enterprise Upgrade: $16.42
  Office 365 A3 SKU: $24.31
  (i.e., license Office Pro Plus via Office 365 A3)

• With proposed supplemental funding from Telecom, UTFAB, and ASCSU, Office 365 A3 drops to $15-$16/Person (fairest way to distribute savings).
Proposed model (cont.)

• For current Desktop Bundle customers:
  – Purchase appropriate CAL Suite (Core or Enterprise) plus Windows Enterprise Upgrade under EES; FTE formula applies
  – Purchase Office 365 A3 SKU; no FTE formula applies

• For current Office Only and not-currently-EES areas:
  – Purchase Core CAL Suite under EES; FTE formula applies
  – Purchase Office 365 A3 SKU; no FTE formula applies

• Office 365 A3 SKU is licensed by head count (full and part time faculty/staff), no FTE formula is allowed.
Proposal for getting there

• ASCSU and UTFAB have committed to funding @ $1 per student FTE per year => $54K
• Telecom contribution
  – Total contribution: $40k/yr. for Unified Messaging
  – An additional $20k/yr. above current costs
• At the campus level, budget neutral, but
  – Redistribution of expenses at the unit level
<table>
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<tr>
<th>Department</th>
<th>Current MS EES</th>
<th>Proposed EES+A3</th>
<th>Difference</th>
<th>Proposed+Telecom</th>
<th>Difference</th>
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</tbody>
</table>
Example

- Today, licenses Desktop Core Bundle, formula-based FTE count is 100; head count is 150:
  - $100 \times 53.98 = 5,398.00$
- Proposed, license Core CAL Suite+Windows Enterprise Upgrade+Office 365:
  - Base: $(100 \times (9.98+16.42) + (150 \times 24.31)) = 6,286.50$
    - With Telecom supplement: $(100 \times (9.98+16.42) + (150 \times 20.44)) = 5,706.00$
    - With Telecom and UTFAB/ASCSU supplements: $(100 \times (9.98+16.42) + (150 \times 15.22)) = 4,923.00$
- Areas that don’t currently utilize EES will pay more (but some utilize MS Select, so must consider annualized Microsoft expenditures)
Office 365 eventually includes...

- E-mail (Exchange hosted in O365)
- OneDrive for Business (1 TB of cloud storage)
- Lync (Instant Messaging, Audio/Video Chat, Desktop sharing)
- “Free” Microsoft Office for students and qualifying faculty and staff
  - Up to 5 full installs of Office for personal use
Office 365 currently includes...

– OneDrive for Business (1 TB of cloud storage)

– Lync (Instant Messaging, Audio/Video Chat, Desktop sharing)

– Office Install – Available to students and CSU Info Workers
  • Up to 5 full installs of Office for personal use

*Note: Primary end user support must be provided by dept/units*
Who is eligible for O365 Services?

<table>
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<th></th>
<th>Lync</th>
<th>OneDrive for Business</th>
<th>Office ProPlus or Student Advantage</th>
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<tbody>
<tr>
<td>Undergrad Students</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Graduate Students</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>CSU Faculty and Staff Classified as Info Workers</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>CSU Faculty and Staff Not Classified as Info Workers</td>
<td>Yes</td>
<td>Yes</td>
<td>*No</td>
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<tr>
<td>Associate eID Accounts</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
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</tbody>
</table>

* Exception process to allow non-qualifying employees to purchase Office ProPlus subscription in the works
O365 Lync, OneDrive, and Office Available to...

– Today: Members of Subnet Managers listserv

– Next week: Rest of campus (faculty, staff, and students)
Notables

• Office 365 Portal: https://portal.office.com

• Login to o365 portal and all O365 services with eID in the format of ename@colostate.edu
  – It is your CSU eID – just a new format!

• O365 Office subscription service/status does not change how Microsoft Office is installed on campus/lab PCs!!
Exchange migration (e-mail and voice mail)

– Sept-Dec 2014
  • Plan/test migration processes
  • Migrate early adopters

– Jan-March 2015
  • Migrate Exchange to Office 365
Next steps

- Review O365 content posted at [http://help.mail.colostate.edu](http://help.mail.colostate.edu)

- Login and use the O365 services

- Attend O365 Q&A:
  - Date: Thursday/August 14  2:00-3:00pm
  - Location: Anyone have a room we can use?

- Send questions to [exchangehelp@colostate.edu](mailto:exchangehelp@colostate.edu)
Innova EVS

Scott Baily, ACNS

- An electric car will be available through motor pool.
DNS Server Update

Mike Willard, ACNS

• Currently CSU has 2 DNS servers:
  – Rush, Hasty
  – Virtual machines

• Need more robust DNS
  – Move to physical machines.
  – Add two more DNS servers for campus.
  – Need to add new servers to client machines.

• Mike will send group names and IP address of new servers when available.

07/23/2014
Globus

Jeremiah Baughman, ACNS

globuscolostate#Colostate01

• A system for transferring and sharing Your files in the World of Research and Big Data.
What is Globus

• Globus tool designed for large scale high throughput file transfers and file sharing.

• Very high throughput system, uses Grid FTP to transfer files to other Globus Endpoint sites and systems.

• Joint project between the University of Chicago and Argon National Labs.

• Widespread use at many research facilities around the country and world.

• In a way you can think of it as Dropbox for HPC, Research, and Big Data.
What do we have and want from Globus at CSU?

• Have set up an initial endpoint server to provide high performance storage and network connectivity to the larger Globus community of endpoints and servers.

• Have set up a CSU contract with Globus and have sponsored Globus Accounts that allow for sharing.

• Its purpose is to meet the needs of our researchers.
What do we have and want from Globus at CSU?

• We are analyzing our use cases for this tool and how it can fit into our plans for research computing going forward.

• To get set up or for questions please send email to:

  globus-csu@colostate.edu

• Questions?
VoIP

- Kyle Haefner, ACNS
- 4578 Phones
- 1,501,477 calls in 2014
Recently Completed Buildings

- MRB
- Environmental Health
- AIDL
- Aylesworth
Upcoming Buildings

- Plant Science
- Animal Science
- Laurel Village
- Gifford
Upgrades

• Standardized on biannual versions
  – December Break

• Phone Firmware
  – Rolling upgrade
    • Headsets
Reminders

• Moving Phones – Don’t!
  – Telecom will move them for FREE
CSU Moves to Canvas – Kevin Nolan

UNIZIN Consortium and Instructure

- Strategic move.
- 10 schools to start.
- Use Canvas as LMS.
- Work with Instructure to build Analytics and Content Repository.

See Pat Burn’s presentation:

CSU to Canvas - TimeLine

2014

• Pilot – fall semester
  – Approx. 40 instructors, 60 courses, 2,000 students.

• Publicize to campus.

• Sept – plan to migrate RamCT courses for faculty

• Oct 2014 – request spring courses
  – Will be created in both RamCT and Canvas.

• Encourage faculty to begin to move.

07/23/2014
RamCT to Canvas

2015
- Spring/Summer - Encourage faculty to move.
- Fall – expected to have course in Canvas.
  - Need exception to teach in RamCT

2016
- Spring
  - Clean up, Incompletes, Make RamCT backups.
- June 30 – contract with Bb ends.

07/23/2014
RamCT to Canvas

• Training
  – Hands on Workshops
  – Canvas Guides and Videos
  – Set up 1:1 time with College Coordinator or central Canvas support.

• Support
  – Propose to have Canvas Help Center in Morgan.
  – Stop to learn about project and for answers to quick questions.
  – Major web browsers.
  – No long need Java JRE.
Security

- Enhanced network blocking and scanning
- Symantec Endpoint Protection
- Windows Server 2003 end-of-life
- Juniper Secure Access
- PCI changes coming
- Protecting eID credentials
- Duo two-factor auth
Enhanced network blocking and scanning

- Adding the Spamhaus EDROP list to our border firewall
- Have begun scanning from outside the firewall (Gloves off)
- Cleaning up insecure protocols from the internet (Die, TELNET!)
- Moving toward scanning of ALL subnets from inside (safe scan, do-not-scan list)
Symantec

- One-year renewal under new licensing model (FTE-based, rather than per device)
- Request for payment will come through RamTech
- Clients via ACNS
- Committee will be doing a careful comparison this fall
  - Symantec vs Microsoft (performance, resources, management, reporting)
  - Recommendation by January for next fiscal year
Windows Server 2003 end-of-life

• First, thanks for all the work on getting XP retired this year
• Next summer (July 14), the axe falls on 2003... FYI
• Target: 2012 R2 if you can, 2008 R2 with older hardware
• I sent a survey in June (almost every group responded)
  – Among those responding, we have 55 of these servers
  – All of these folks are aware of the issue and have a plan. Do you?
Juniper Secure Access

- Upgrading to new major release (8.0) of gateway (later this week)
- Current support for Mac OSX 10.9 (Mavericks) and Windows 8.1
- Junos Pulse Desktop replaces Network Connect (except for Linux)
- Pulse client distribution options
  a) same as before, dynamic
  b) manual distribution, then visit the URL and it'll config
  c) manual distribution with a config file
- End-user documentation on ACNS web site
- Network Connect/Pulse can be installed together, but can’t run concurrently
PCI changes coming

- Keep using analog communication for stand-alone terminals
- If you have a firewall protecting a stand-alone IP terminal, keep using that
- Risk Assessment Tool
  - If you have credit card merchants in your unit, do the RAT *each* year
  - Has your unit ever completed one of these?
- E-commerce servers:
  - Expansion of PCI scope (web servers now in-scope)
  - Need to move servers (physical/virtual) to ENGR e7 datacenter
    - Separate, dedicated firewall
    - Physical, environmental, access controls
  - Considering the longer-term approach

07/23/2014
Protecting eID credentials

• We've passed the 1-year mark, eID password renewal emails should be expected
• We've been updating our policies & procedures as part of preparing for InCommon Silver
• NO use of eID password for authentication over cleartext channel
  – Must use HTTPS for eID WebAuth or Shibboleth
  – No TELNET or FTP with eID (use SSH, SFTP or FTP/S)
  – Check your WordPress, etc…
  – Back-end authentication over *secure* LDAP only (or other encrypted protocol)
Duo two-factor auth

- Partner with InCommon
- Uses smart phone as 2\textsuperscript{nd} factor
- Easy to use, simple interface
- Testing in ACNS, replacing CryptoCard?
- Supports integration with Shibboleth
NOC
(Network Operations Center)
Greg Redder

Things on the front page of a university website:
- Campus photo slideshow
- Alumni in the news
- Promotions for campus events
- Press releases
- Statement of the school's philosophy
- Virtual tour
- Letter from the president

Things people go to the site looking for:
- List of faculty phone numbers and emails
- Campus address
- Application forms
- Academic calendar
- Campus police phone number
- Department/course lists
- Usable campus map
- Parking information
- Full name of school
Agenda

• Campus Infrastructure Committee Update – 10Gig and beyond!
• IP “reorg.” process
• Research LAN status
• Wireless, Wireless, Wireless
• How to handle stolen laptops
• Misc. and fun errata!
IP “reorg.” process

IP space per building

• Can’t span Vlans across campus any longer.
• Will provide public and private IP space per building.
• Will need to “clean up” a building before moving to dual 10G links.
• Started in Wagar, Clark C, BSB, Yates and Chemistry, Animal Sciences, Engineering.
Research LAN status

• Added dedicated 10G to Front Range GigaPop (FRGP)

• Working on policies, routing, final configuration.

• Globus
Wireless, Wireless, Wireless!

Recent upgrades:
• Morgan – all new APs, 802.11.ac capable
• GA Classroom refresh to 802.11ac

Coming soon!
• Transition to “csu-guest” from “csu”
• Transition to “csu-eid” and away from “csu-net” and “csu-net5”
• Eduroam

Note: All others will be hidden!
Wireless, Wireless, Wireless!

Conference room screen mirroring:

$ Apple AirPlay
$$ Crestron AirMedia
$$$$ Mersive
Wireless, Wireless, Wireless!

Relay issues though:

- help@colostate.edu
- 491-7276
- Central IT Help Desk at Morgan Library.
How to handle stolen laptops

Step 1:
- Open a case with CSUPD and get a case #.

Step 2:
- Provide CSUPD with a username that typically logs into the device and the device’s MAC address.

Step 3:
- Ask CSUPD to contact noc@colostate.edu with a request to have us “look” for the device with the MAC and username you provided them.
How to handle stolen laptops

Notes:

• NOC must have CSUPD case#. Otherwise, we are not allowed to “look” for the device.

• NOC can only look for stolen devices or login information upon request from CSUPD or General Counsel.
Misc. and fun errata!

• Construction Updates
  – LSC
  – Animal Sciences
  – Breweries (LSC and Gifford)
  – Laurel Village
  – Eddy remodel

• New core routers (round 2)
Misc. and fun errata!

Electric cars
Thank you.

noc@colostate.edu