

# **CSU Subnet Managers Meeting**

Wednesday, May 20, 2015

With your host, Wayne Hall!

# Agenda

- IAM Update  
eID Persistence  
Central Authorization  
Lecture Capture – Rusty Scott
- Middleware Updates – Randy Miotke
- Data Management - Shea Swauger
- IS Update – Josh Clark

## **Agenda (cont.)**

- Lamar Decommission/Ofc 365 – Dave Hoffman
- Licensing – Diane Noren
- VOIP – Kyle Haefner
- Security Update – Steve Lovaas
- Network Operations Center – Greg Redder

# **IAM Update**

Rusty Scott, ACNS

# IAM Task Force

(re)Created in 2014, Strategic in nature  
Operational groups will form as a result

## Members:

Human Res– Tracy Hutton	IS – Bob Engmark
Research Services – Ron Splittgerber	Internal Auditing – Stephanie Wolvington
ACNS (Middleware) – Randy Miotke	Chair, Rusty Scott
College IT Administrators Council Scott Novogoratz – CVMBS Dave Carpenter – CHHS	

# Recommendations...

# eID Persistence

- As a general strategy, eIDs should not be deactivated
  - Manage access through authorization processes
  - A win for Registrar's Office, Alumni and others

# Central Authorization Services

- Establish central authorization services for providing flexible role- and group-based access to systems and services
- Currently missing from our IAM environment
- Better de-provisioning
- Should include delegated administration
- Grouper discovery
  - Well supported, lots of traction in HE
  - 'Grouper group' to begin the education process
    - Explore functionality
    - Contact other institutions who have Grouper in production



## **Credentials for External (non-eID) users**

- Seek alternative for managing credentials for external (non-eID) users
  - Many in-house credentialing systems in existence today
  - Opportunity exists to off-load this to external providers and should be explored
    - Google, Facebook, others
  - Explore/pilot Cirrus social-SAML gateway services

# Simplification

- Explore areas of simplification
  - Move to a single authentication platform, Shibboleth
    - Scope the problem, determine sunset date for WebAuth
  - Reduce the number of places that credentials are stored
    - For example, MS child domains
    - Authorization services will help this process
    - Policies, guidelines, transition help should be provided

# For InCommon Levels of Assurance...

- Apply for Bronze Assurance once lamar has been decommissioned
  - Not a huge functional win today
  - Really good PR internally and with the Feds
    - Shows we are doing things right with respect to security and best practices
      - Protection of PII
      - Credential creation & revocation
      - Authentication and encryption technologies are sound
      - Record keeping
- Move as quickly as possible towards Silver Assurance
  - Enter, 2-factor authentication

# Address of Record Compliance

- Need to verify (receive something back from) an address on record during credentialing process
- Today, different processes exist for undergrads, employees, associates, graduate students
- Can be resolved with slight change to eID 'create' process
  - One-time expiring token/link sent to the user's email address on record
  - Avoids confusion related to format of birthdate, complex last names
  - Consistent process for all user groups
- Assuming no issues (Admissions, HR, Grad School), Summer 2015

# Lecture Capture Update

# Lecture Capture - Background

- Echo360 adopted in 2012 as campus standard
- Supported/funded largely by OnlinePlus, UTFAB, ACNS
  - CHHS, Ag. Sci, CVMBS also at the table
- 30 classrooms equipped with in-class capture
- Personal Capture solution used widely
- Usage continues to grow, both in recordings and views

# Lecture Capture – Changes are Coming

- Substantial changes in Echo's platform delivery and licensing models
  - Changes are still in motion
  - More 'product' = more \$
- For FY16 at CSU
  - Echo agreed to keep licensing costs at FY15 level
  - Stick with what we have, let the Echo dust settle
  - Concurrently, take a look at the LC landscape to make sure we have it right
    - Point of contact for the analysis effort, Al Powell, OnlinePlus

# Questions?



# Middleware

## Staffing Update

- Alan Crump has retired
- Wayne Hall has joined the Middleware group
  - Grouper – central authorization project
  - Shibboleth Identity Provider (IdP) and Service Provider (SP) support
  - Tier 2 help for Middleware services

# Delivered Attributes from Shibboleth IdP

- LDAP core schema
- colostateEduPerson
- eduPerson
  - <http://software.internet2.edu/eduperson/internet2-mace-dir-eduperson-201310.html#eduPersonAffiliation>
- Mix of person data and controlled vocabulary values

# eduPerson Directory Attributes and Values

- Attributes released to any SP within the CSU Federation:
  - uid: gweasly
  - cn: George Weasly
  - displayName: George Weasly
  - givenName: George
  - mail: G.E.Weasly@colostate.edu
  - sn: Weasly
  - o: Colorado State University
  - ou: Acad Comp Netwrk Svc

# eduPerson Directory Attributes and Values

eduPerson attributes released:

- eduPersonAffiliation: member
- eduPersonEntitlement:  
<http://eid.colostate.edu/entitlement/Associate>
- eduPersonNickname: George
- eduPersonPrimaryAffiliation: affiliate
- eduPersonPrimaryOrgUnitDN: ou=Acad Comp Netwrk Svc,o=Colorado State University,dc=colostate,dc=edu

# eduPerson Directory Attributes and Values

eduPerson attributes released:

- eduPersonPrincipalName: `ename@colostate.edu`
- eduPersonOrgUnitDN: `ou=Acad Comp Netwrk Svc,o=Colorado State University,dc=colostate,dc=edu`
- eduPersonOrgDN: `o=Colorado State University,dc=colostate,dc=edu`
- eduPersonScopedAffiliation: `member@colostate.edu`
- eduPersonScopedAffiliation: `affiliate@colostate.edu`

# **eduPerson Directory Attributes and Values**

colostateEduPerson attributes released:

- colostateEduPersonCSUID: 825xxxxxx
- colostateEduPersonEID: eName
- eduPersonAffiliation: affiliate
- colostateEduPersonEIDAccountType: P
- colostateEduPersonAriesID: 1xxxxxxx
- colostateEduPersonAssociateID: 1xxxxxx
- colostateEduPersonEIDIRID: 1xxxxxxx

# **Shibboleth and CSU Federation Resources**

- [csufederation.acns.colostate.edu](http://csufederation.acns.colostate.edu)

# Information Systems Update

Josh Clark, IS

- Banner
- HR
- Kualu



# Lamar, Ofc 365

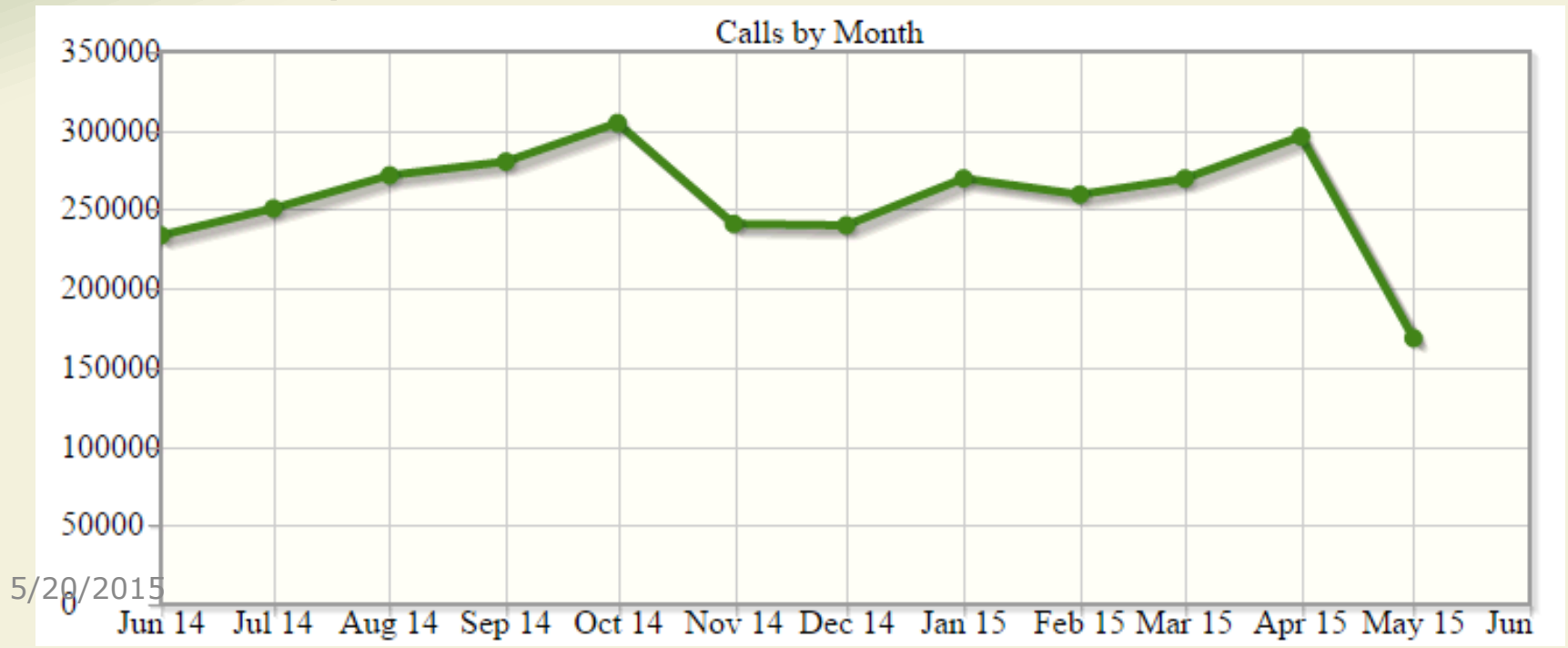
- Dave Hoffman, ACNS

# Licensing / RAMTech

- Diane Noren, ACNS

# VoIP Stats – Kyle Haefner

- 5,105 Phones
- 1,272,813 calls in 2015
- 75 of 120 Campus buildings
- 100% uptime since 06/12/2014



# Upcoming Buildings

Building Name	
A-Z	May 2015
Palmer Center	June 2015
Weber	July 2015
GSB	July 2015
Rockwell	September 2015
CEMML	October 2015
Yates	November 2015
Regulated Materials	December 2015
ARBL	December 2015
VTH/DMC	Q1 2016

## Additional Projects

- Multicast Paging/Push to Talk
- Push alerts to phones
- Call Center
- SIP Trunking
- User editable Phone Tree audio
- Group call out

# Reminders

- Moving Phones – Don't!
  - Telecom will move them for FREE
  - We now send a friendly email 😊
- No Building Power = No network = No Phone

# Security Issues

Steve Lovaas, ACNS

- Endpoint Protection
- PCI upgrade
- Juniper firewalls
- SSL gateway
- Vulnerability scanning



# Endpoint Protection

- Moving away from Symantec
- Microsoft System Center Endpoint Protection (SCEP)
- Home users/students
- Windows  
Firewall/Defender/SmartScreen/supplemental tools
- SCEP for Linux and Mac
- Management via SCCM (versus deployment via GPO/script)



# PCI Upgrade

- More transactions (level 2) and new rules (version 3)
- Too much to do using our current model, so:
  - New FTE
  - E-commerce to the cloud (TouchNet)
  - Some additional compliance tools
  - Funding the above from merchant charge-back
  - Details working through VP approval process

# Juniper Firewalls

- SSG line is nearing end of life
- SRX line is cheaper, better, faster
- If you have an SSG, you should be upgrading

# SSL gateway (by any other name)

- Pulse Secure is the new company name (Connect Secure is the product)
- Code upgrade early June
  - New IP address for URL and internal source
  - Pulse Secure client the default for all roles (new download)
  - Network Connect still available for Linux and Mac 10.7-10.8

# Full-network Vulnerability Scans

- Ready to start this summer

# Security questions



**NOC**  
**(Network Operations Center)**  
**Greg Redder**



5/20/2015

# Agenda

- Wireless
- Building Updates
- IP Restructuring Project
- Speedtest

# Wireless: GA-related upgrades



- **Classrooms:**
  - Upgraded to 802.11ac (Clark pending by end of June!)
- **TILT:**
  - Upgrading to 802.11ac this Summer
- **Filling in remainder of buildings with 5GHz**
  - In progress: Chemistry
  - Next up: Shepardson



# **Wireless: Non-GA related upgrades**

- **Enhanced coverage completed:**
  - Routt, EHS, USC, UCA, Gibbons
- **Enhanced coverage pending:**
  - Engines Lab (old Part), Statistics, ERC, Student Services, Clark B, Aylesworth, Weber, Centennial, DMC

## **Wireless: New Construction**

- Weed Research Addition(May)
- HHS Addition to Moby (May)
- PERC (July)
- ARDEC Ag Education Center (July)
- AECOM (July)
- UCA Annex (July/Aug)

# Wireless: Issues

## Current top issue:

- Macs continually reconnecting! NOC will modify configuration tool: <http://www.acns.colostate.edu/wireless>

## Relay issues through:

- [help@colostate.edu](mailto:help@colostate.edu)
- 491-7276
- Central IT Help Desk at Morgan Library.

# **Building Updates: 10G Upgrades**

## **Dual 10G to “core” since March meeting:**

- Plant Sciences

## **This Summer:**

- LSC
- Rockwell
- NR (hopefully!)
- NESB (hopefully!)

## **Pending IP Restructuring:**

- Weber

# **Building Updates: Construction**

## **Construction:**

- Weed Research Addition(May)
- HHS Addition to Moby (May)
- PERC (July)
- ARDEC Education Center (July)
- AECCom (July)
- UCA Annex (July/Aug)
- College Ave Parking Garage (Dec)

# **Building Updates:**

## **Network Upgrades** (in preparation for VOIP)

### **Q2-Q3 2015:**

- Rockwell
- ARBL
- VocEd (CEMML)
- Regulated Materials
- Weber
- Residence Halls (addition of VOIP/camera switches)

### **Q4 2015:**

- VTH, DMC and outlying buildings

### **Q1 2016:**

- Yates

# Speedtest

speedtest.colostate.edu:7123

&

perfsonar1.research-lan.colostate.edu:7123

The Network Diagnostic Tool (NDT) provides a sophisticated speed and diagnostic test. An NDT test reports more than just the upload and download speeds — it also attempts to determine what, if any, problems limited these speeds, differentiating between computer configuration and network infrastructure problems. While the diagnostic messages are most useful for expert users, they can also help novice users by allowing them to provide detailed trouble reports to their network administrator.

NDT can make use of either a Java plugin, or WebSockets to perform the test. Make sure that the method you choose is supported by your browser

The WebSocket client currently in beta. Due to the nature of WebSocket support in various web browsers, the results may be notably lower than those obtained with the Java plugin

Java

WebSockets<sup>Beta</sup>

[Learn more about NDT](#) - [Learn more about Measurement Lab](#)

**START TEST**



# WebSockets

## YOUR TEST RESULTS

SUMMARY

DETAILS

ADVANCED

### UPLOAD SPEED

**2.44** mb/s

### DOWNLOAD SPEED

**362.52** mb/s

**Network latency:** 1 msec round trip time

**Jitter:** 196 msec

[More information about NDT](#)

[More information about Measurement Lab](#)

**TEST AGAIN**

# Java

**YOUR TEST RESULTS**

**SUMMARY** **DETAILS** **ADVANCED**

**UPLOAD SPEED**

**395.82** mb/s

**DOWNLOAD SPEED**

**484.56** mb/s

**Network latency:** 1 msec round trip time  
**Jitter:** 6 msec

[More information about NDT](#)  
[More information about Measurement Lab](#)

**TEST AGAIN**

# IP Restructuring



Thank you.

[noc@colostate.edu](mailto:noc@colostate.edu)

Steve Banghart (wireless)

Zack Davis (wireless)

Scottie Dawson (security)

Richard Duffy (switching/routing)

Jim Farnell (wireless)

Nic Garrison (switching/routing)

Kyle Haefner (VOIP)

Steve Lovaas (security)

Greg Redder (manager)

Robert Remsik (switching/routing)

Trent Shane (switching/routing)

**Have a Good Summer!**