

ASU

Network/Telecom/Sys Admin

- Sys admin team lead is now also managing network and telecom
- Time for more bandwidth, renegotiation with Centurylink, second provider fiber now on premises (Affiniti).
- IPv6 testing
- Core router upgrade
- Redundant Aruba controller roll out imminent
- Richardson Hall Remodel
 - - New lock system- CCure
 - New camera system via Avigilon
 - Secondary data center built, working redundant fiber paths and fail over between data centers
 - Successful VOIP roll out using CISCO CUCM - Centurylink contracted for the installation - Zero phone outage for the install - Egress from campus is via the VOIP router, so future expansion replaces the legacy Fujitsu 9600 PBX with no service interruptions
- Verizon antenna project going up on campus
- Linux KVM interface now via OpenNebula product, very nice
- Puppet and SCCM configuration management now ubiquitous across servers
- Edge and Server Firewall system up for hardware upgrade this summer
- Still using CEPH for internal cloud storage, working nicely zero data loss over a few years of service now, easy to expand somewhat touchy to upgrade
- Deployed CDMA NTP appliance, works well, expanding with GPS NTP appliance soon
- Starting to use Docker container environments for some web application deployments
- Investigating self service password resets to help the helpdesk
- Using VDSL back haul for expansion of wireless in old non cabled dorms
- CATV Upgrade this summer

Banner

- PCI 3.0 Compliance tasks, isolating Cardholder Data Environments
- Gearing up for Banner XE
- Oracle 12c, FinAid 8.22.1 and 8.23, General 8.7.3, Student 8.7.2.1, Java 7 & 8 upgrades looming
- Web-time entry, EPAFs, salary encumbrance, CORE
- Account deletion process, working to automate
- Ellucian Mobile 3.0, online graduation application, eligibility for Associates Degree
- Banner Oracle deployments moving to VM
- Check-Im here project with Student Life

- Down 2+ positions, just hired 1, investigating Ellucian consulting services/training for functional folks, and investigating out-sourcing/hosting various components of our Banner infrastructure

Support Services

- Switch complete to Gmail for faculty and staff - SysCloud- Cloud based backup provider for email, docs, drive in addition to vault, PII scanning feature
- Absolute manage deployment for Mac config mgmt and patching
- RFI for room scheduling software
- Microsoft Bitlocker Administration and Monitoring for disk encryption
- Office 365 Education free to students and employees
- KnowBe4 simulated phishing and IT Training

Institutional

- New President July 1
- IT Governance structure working well
- HLC re-accreditation, updating IT Policies
- Campus Strategic Planning, updating IT Strategic Plan
- University compensation committee- challenge of compression, inversion and Classified IT system collapsing
- Chronicle article "fixer"- some CDE and HLC scrutiny of account management policies

CCCS

- Student E-Mail single sign-on - One Drive, Office (Quick Launch SSO)
- OneDrive for Faculty and Staff
- Identity management
- DR/BC project
- Solid State Storage system for Oracle DB's
- Recruiter trainings with an approximate go-live date of late June
- eTranscript has been fully implemented in the last month
- Degree Works upgrade
- CASHNet eBill is live for all colleges
- FA 8.22.1 upgrade (huge for FA)
- Banner XE – Catalog & Schedule beginning discussions with go-live date of late summer
- Flac II release was just moved into Production
- McCann Testing – new testing software
- Reverse Transfer is live
- Currently in the IT testing stage of summer upgrades
- Recently upgraded Cisco VoIP to 10.5.2 and Call Center 10.6
- ADAstra for Room Scheduling and Tracking

- Project to collapse AD environment
- Online
- Consolidated hardware into CCCS-IT (got out of the hardware business)
- D2L continuous delivery upgrades starting in May

CMU

- We turned off our last Novell server in November. We are managing desktops using SCCM. Managing student Office365 accounts using Forefront.
- We are currently using MS Lync for IM and web conferencing, and we are investigating Lync for our voice. We are starting with a small Lync pilot for the IT help desk which includes AVST's informal call center solution, Team Q.
- Opened up a discussion with Faculty technology steering group related to OneDrive for Business.
- We just purchased JAMF Casper for managing our Macs
- Our Marketing and Recruitment staff went live with Ellucian Recruiter in September after a 6-month implementation phase. Full implementation has taken the better part of a year.
- We have signed a contract with Ellucian Pilot, Student success CRM. Our Pilot implementation is to begin this summer.
- We have implemented Degree Works version 4.1.4 and are finishing up Transfer Equivalency
- We rolled out CMU Mobile (Ellucian Platform Edition) in February. There have been almost 4,000 downloads of CMU Mobile to date.
- Implemented TouchNet Mobile
- We have (finally) fully implemented Maxient for student conduct
- Performed several upgrades to Booklogs this year and replaced PC Charge with Payware.
- Worked with Parking Services to implement new Parking Management software, AIMS.
- Installed an Exacqvision NVR, and we have deployed approx. 90 IP security cameras so far. The plan is to phase out all Schlage building DVRs.
- Library Renovation project. We currently have student library services disbursed between three library storefront locations and a long term storage facility. The new library is supposed to be open mid-November.
- Installed through Centurylink a secondary Internet connection to provide some level of redundancy to campus. We purchased the community hospital property just north of campus and we installed the secondary to a new server room.
- Purchased a couple of Polcom Group 500 and 700 series room systems to support our remote campuses.
- Implemented Meraki mobile device management platform for managing tablets and smartphones that don't synchroze with Exchange server.
- Implemented CAS (Central Authentication Service) for D2L and Touchnet

- We are researching PCI 3.0 and discussing required network and system changes to remain compliant.
- HIPAA policy discussion for Athletic Training
- Lecture capture RFP
- Human Resources is looking at Applicant Tracking systems
- Academic Affairs is looking at purchasing an Assessment and e-portfolio software.

CSU

1. Unizin
 - a. Canvas transition: need anti-plagiarism, professional web conferencing (BBB)
 - b. Academic workbooks, e.g. ALEKS, becoming huge - need LTI
 - c. Content repository effort by Unizin
 - d. Ramping up Learning Analytics in multiple areas of the institution
2. IPAS (Integrated Planning and Advising Services) implemented
 - a. Adding embedded professional advisors to all departments
 - b. Beacon for freshmen, co-curricular and extra-curricular activities
 - c. Transferology.com
 - d. U.achieve replacement for DARS, degree audit
 - e. U.direct curricular planning tool being populated
 - f. BB Analytics implemented and abandoned
 - g. Ellucian mobile
3. WiFi upgrade going very well – cost share between central and student funding
4. Transition to O365 underway
5. Updated LAN architecture to include a Research DMZ
6. Upgrading Digital Repository: DigiTool going to Dspace
7. Implementing curriculum and catalog solution (Leapfrog/Courseleaf)
8. Events Management System (EMS) maturation, forcing usage for departmental classrooms
9. Flipped classrooms - See Scott's presentation
10. 911Cellular mobile safety app implementation being planned
11. New classroom technologies
 - a. Wireless projection, mobile displays
 - b. HDMI
 - c. Laser vs. bulb projection systems
 - d. Large format displays instead of video projectors
12. Administrative system upgrades
 - a. Pursuing Banner XE (Xtremely Expensive) upgrade
 - b. Quali Financial System
 - i. Added CSU Pueblo in July, 1X cost of \$30k, no recurring additional cost
 - ii. Travel, Entertainment and Moving module just implemented
 - iii. Contracts and Grants Billing on the horizon
 - c. Quali Coeus Research Management System
 - i. Implemented pre-award phase 1
 - ii. Implemented Conflict of Interest

- iii. Additional Workflows being contemplated
 - iv. Exploring IACUC, IRB modules
 - d. PeopleAdmin being “bolted on” to Oracle HR (EBS)
 - e. Exploring alternatives to eThORITY for BI
 - f. Re-architecting central data infrastructure for Learning Analytics
13. Echo360 - Substantial changes to Echo’s platform and cost model (hosted only eventually, and will include the ‘active learning platform’). Looking for options.
 14. Continuing the roller coaster ride with City of Fort Collins in developing a next generation, gigabit based broadband solution.
 15. VoIP migration continues, > 60% complete
 16. Working hard to achieve PCI v3 compliance by December 31, 2015
 17. Inflation for library journals has now reached “crisis” levels – unsustainable
 18. Working to achieve InCommon Silver level of assurance (LoA 2)

CU Boulder

- Data center – collapse multiple data rooms around campus
- Private Cloud deployment
- VoIP rollout
- Accessibility – DOJ inquiry
- CRM – Salesforce – student success
- Campus wide committees
 - Space utilization -
 - Learning space advisory board
- DAS - stadium
- Distance learning - BBA
- O365 for staff
- Campus wifi refresh – 802.11AC
- VDI for labs

DU

TELECOMMUNICATIONS:

- Aruba Campus Wireless LANs:
 - 95% complete on major Academic building upgrade (Sturm Hall):
 - Removed 42 x 802.11n and upgraded to 103 x 802.11ac (AP-225) units over Spring Break
 - Campus Total 802.11ac = **175 AP-225s**
 - Engaging in a complete re-design for Summer/Fall 2015
 - Purchased Aruba ClearPass to enable new enhanced service levels

- Moving to unencrypted SSID, Dropping NAC, MAC registration model
 - Will use EduRoam for 802.11x (moving from DU ID to e-mail address for Identity)
 - “Returned” 2 x VMs for 2 x Physical appliances – Disk and RAM requirements
 - Looking at Certificate and NAC functions for future
 - Airwave 7.7.11
 - Aruba OS 6.4.2.1
 - Planning a major investment in a campus wide to capacity and coverage expansion in residence halls, academic and staff buildings.
- 6500 Core-Routers & Switches:
 - Data Center Switch Audit – hired GTRI to produce deliverable
 - Continue to deploy MPLS/VPLS-PE as needed.
- Campus Wide VoIP Project/upgrade:
 - Moving up administration’s priority list, yet remains “on hold”.
 - Looking at Campus Agreement
 - Investment into UCS chassis & blades Summer/Fall 2015
- Videoconferencing Upgrades:
 - Working on a WebEx Agreement for Board of Trustees needs
 - Testing Zoom Pro Accounts within UTS for Disaster Recovery needs only, with one room connector
- Pinnacle Telemanagement Software “Calero” (Billing SW)
 - Hired Professional Services to work on look and feel of monthly Invoices invoice detail
 - May go live!
 - Looking at adding Cabling and Electronics chargebacks in the package
 - Adding Comcast Academic drop recharges
 - Looking at upgrade (Oracle 11.1.0.7 -> 11.2)
- Legacy Voicemail System upgrade (Callegra Callware)
 - Moving to a new VM (from two Physical Servers) MS-Server 2008, 2 x Audio Codes Gateway
 - Moved forced FAXServer/service to be upgraded too
 - Having Integration issues with lighting lamp on PBX phones – ongoing delay
- NetScout – Application Performance Monitoring and Network Troubleshooting
 - Upgraded to 5.3
 - Adding more and more Apps
 - Cross-training and Professional Development continuing
- PerfSonar
 - Planning on adding second server in data center
- CATV / Legal IPTV
 - 7 year contract expires 9/16 – RFP?
 - Comcast wanting to test IP product for free / 10G peering @ border router

CENTRAL SYSTEMS & SOFTWARE:

- **Email:**
 - Office 365 Project:
 - Signed net+ Support Agreement
 - Moving to first.last@du.edu for SSO, Etc.
 - Launch target 3/2015, Students met, testing with some Staff
 - Faculty and Staff are next
 - *Authored* method to sync LDAP passwords to MS-AD Passwords
 - Scope is E-mail, One Drive and Office Pro
 - Had to upgrade on premise Exchange servers for hybrid cloud model to work
- **Virtual Desktop Infrastructure (VDI):**
 - VMWare infrastructure upgrade; VSphere & VCenter 6.0 stable
 - Persona pilots; 6 areas (personalized desktop)
 - Zero Clients (TWC Labs)
 - Testing nVIDIA GRID Cards – for ArcGIS application
- **Banner** (8.5 & 8.6, 8.4, 8.17 & 9.X – depending on module)
 - **Banner XE**
 - Registration Module – Complete
 - Student Advising Profile – Soon
 - Attendance Tracking – Soon
 - Employee Profile - Soon
 - **Oracle:** Upgrade to 12C
 - Shared Service Process Improvements:
 - Paperless on Hiring (Silkroad Openhire), Separation Process, & Job Change Requests
 - Travel and Expense Software

 - Implementing a custom secondary password/passphrase process for access to some things
- **Blackboard** = 9.1
 - Turndown 7/1/15 is still the plan.
- **Canvas in the Cloud**
 - Net+ Agreement
 - 30% Fall 2014, 50% Winter 2015, 80% Summer 2015
- **DNS/DHCP**
- **Load Balancer**
 - F5 IP4000 (x2) , todo: Banner, VDI, What else?
- **Hitachi Storage**
 - More Disk – 2015....Details?
 - Injector (Side Loading) for Research Labs/needs (shares)
 - No tiring or this data...
- **Cisco UCS**

- Have migrated 315 VMs – using 90% of capacity (4 x ½ height blades)
- More blades in 2014 – Any Details?
- HPC
 - Some researchers moving to standalone GPU workstations instead
 - 45 nodes now
 - 25% utilization during non-peak / 85% during peak
- Joined RedCap - <http://project-redcap.org/>
- Research Electronics Data Capture
 - DU is a new consortium partner, 3 research groups using it
 - UC Denver is assisting DU on documentation!
- ServiceNow
 - Knowledge = developing/launching
 - “CMS” – Hired Cloud Sherpas to assist/develop – customer facing
 - Launched Fall 2014, working on V2 for Spring
 - Able to get search results in DU google appliance now
 - Project Module & Workflows:
 - Possible partner engagement...
 - Tested **Asset** Module
 - Test “Discovery”, decided to hold for now (\$), attempting homegrown approach
 - Not doing....too much \$\$
- CRM Project(s):
 - Deployed Slate” for Undergraduate Admission , Graduate Admissions soon (12 Schools)
- Desktop Management
 - Continuing to Deploy MS-SCCM
 - Over 2500+ machines deployed on today.
 - Testing @ Apple Deployment Studio for MAC OSX machines
 - Add Jamf Casper suites as add-on – looking at?
- MS-Windows XP Migration
 - Less than <50 Machines left on Campus!
- K2 deployed to manage 50 N-vivo licenses (Qualitative research analysis software)
- UniPrint
 - Investigating mobile printing
 - BYOD support is key – may not work with Pharos/UniPrint
- Adobe Connect
 - Upgrade to 9.3 (Spring)

SECURITY:

- Symantec Anti Virus Upgrade
 - ~3K - Moved from 11 to version 12.1 - ?

- Using MS-SCCM to expedite migration
- Learning about best practices.....on DU managed Images.
- University Wide Security Working Group
 - Regular meetings (Monthly)
 - January, Policy – Address AUP
 - Board of Trustee Involvement & Legal
- IDS (MetaFlows)
 - Enabled Jumbo Frame support!
- Campus Firewalls
 - BOTNET filter – successful!
 - Looking at adding 10G ports for Wireless redesign Project
- Log Management Event Tracker:
 - Firewalls (Campus and Data Center), Core Routers, AD-DCs, F5, Fireeye, IDS, NAC, Symantec
- Websense URL filtering service
 - Upgrade, Redesign, move to 1 x appliance and one VM

NEW BUILDINGS, STRUCTURES & MAJOR REMODELS:

- New School of Engineering and Math and Computer Science Building
 - **Completion Date:** Spring 2016
- Sié Chéou-Kang Center for International Security and Diplomacy
 - \$20M Addition
 - **Completion Date:** Spring 2016
- Knudson Hall – Major Remodel
 - Entering Phase 2 Planning
- Shared Services building remodel
 - Moving folks off campus to temp location
- Warehouse and mail services facility
 - TBD

OTHER IT Projects:

- Hiring a new CISO
 - Over 130 Applicants in 2 weeks!
 - Interviewing eight candidates now.
- New Chancellor: a DU Strategic Plan:
- “Transformative Directions” / A Quiet Phase of Strategic Planning and Doing
 - 4 Task Forces:
 - Equity, Diversity, and Inclusive Excellence
 - Student Access and Support
 - Professional Development for Faculty and Staff
 - Expanding Sustainability on Campus
- Tyco/Software House/C-Cure

- ~\$3M Project / All External Doors (996)
 - Multi (3) Year project
- Vendor had to re-install database server software 3 times...
- 10 buildings online so far
- 4/2017 end date of project
- Parking:
 - T2 Parking module (Flex)
 - 16 lots total – extended ethernet
 - Moved from on-prem servers to their to hosted solution. (complete?)
 - Moved Forward with AutoVu Managed LPR (License Plate Recognition) solution
 - Enforcement Software, Hosted, Ties to T2 software
 - Upgraded to a new Self Serve Multi Space Pay Station Solution
 - Cale America
 - Local Hardware (13 Meters), & solution is hosted
 - Ties to T2 Software
 - 12 on DU LAN, one on AT&T Cellular
- Avigilon Deployment
 - 10 x new 2U servers (NVRs) for storage/deployment – (moving away from NICE)
 - 26 new IP cameras
 - 94 IP Encoders (4 port) – to replace NICE DVRs in Telecomm Rooms
- Mobile Device Management
 - IPAD, DU Owned upcoming projects (Possibly ~50-400)
 - Moving ahead with Airwatch for Facilities (Via Sprint), Tech review process currently
- Campus Wide Digital Sign Initiative
 - RFP, 4Winds was winning bidder, Hosted
 - Library Tech Services will “own” the service
 - Funded by UTS, Library, Individual Departments – \$57K year #1, \$50K After
 - 52 buildings will have at least one sign
 - 30+ Signs planned today
 - Local sign hardware is mixed, legacy (Visix), NUC hardware for new installs (\$700)
 - Training stage now (filming)
- Deployed TerraDotta Software – Study Abroad
- iModules Constituent Engagement Management – IN Progress
- Student Portal: PioneerView – in Progress
- Aduro for Limeaid Wellness Software
- University College contracted with AspirEDU to
 - Extensive analytics in the Learning Management System, Canvas by Instructure
- Panopto
 - The Sturm College of Law only
- New contract with lynda.com to provide video-based training for University faculty and staff

- University Libraries is contracting with BePress Digital Commons
- StarRez Online Housing Management
- Kronos Time and Attendance – Phase 1
- LeapFrog CourseLeaf Catalog

FLC

- Upgrades
 - Packetfence
 - NCS Cisco Prime
 - ACS
 - New Switch install to increase 100mb to Gig
 - New Gig Phone install
 - Increasing Internet Bandwidth - Cogent missed installation dates.
 - uPortal
 - CAS
 - Shibboleth
 - Wiki
 - Digital Signage
- Rolling out Residence Subnets to allow students to use all devices on same Subnet, wireless printing, etc.
- Increasing wireless coverage, focusing on Residence Halls
- Door Access to Residence Rooms and computer labs/shared classrooms
- Digital Signage in the Labs
- Upgraded, redesigned and relaunched the IT ticketing system (BMC's Service Core 11.6)
- Starting an electronic lock project for IT spaces and computer labs
- Matt is working with a consultant to review the suite of applications in the Labs to rate their level of ADA compliance.
- Banner Student Advising XE
- Banner HR Employee Profile XE
- Document Imaging RFP
- Student Success Process Improvements
- Modification Inventory for Banner XE Planning and Preparation
- StarRez Implementation
- Rolling out Office 365 to Faculty/Staff this summer

MSU

- We now have four vacancies in ITS compared with ~30 18 months ago
- Completed the migration of students, faculty, and staff to O365
- Completed the construction of the new MSUDenver athletic complex
- Implemented a redundant Internet connection for campus
- Consolidating to VMWare and migrating our Banner environment now
- Implementing the EAB SSC – pilot group is underway
- Implementing DegreeWorks for Fall 2015 incoming students
- Implementing Ellucian Recruiter
- Implementing web-time tracking
- Eliminating the dependency/use of Luminus
- Implementing SCCM in our student computing environment
- Planning for the new Aerospace and Engineering Sciences building, break ground this fall
- Joined Internet2 to leverage Net+ services
- Developing a Service Catalog
- Now have an ITS Communications Coordinator and are beginning the consolidation and redevelopment of all our communications materials
- Planning for an account provisioning/de-provisioning system for FY16
- Planning for a pilot VOIP implementation during FY16

UCAR

- going to Aruba WLAN
- UCAR continuing to use Google apps for government
 - more Google Hangouts use (dropped our Vidyo deployment)
 - some installations of Chromebox for meetings (good small and medium conference room solution for our lab anyway)
- enterprise architecture team work continues
 - lots of things pending a decision on a CIO for UCAR or not; hopefully more info this summer
- Manua Loa and UH and NOAA work
 - our group providing networking support
- NWSC next computer coming soon
 - new build out for NWSC-2 supercomputer
 - looking at 40G versus 100G for machine room connections
- NWSC Module-A Buildout
 - Design-build
 - 3-5 Megawatt
- Mesa Lab Data Center (MLDC) Colocation project
- more use of OpenDCIM for rack diagrams/documentation

- still may investigate further use of NetDot
- UCAR going to OpenDNS
- UCAR moving working on moving from testing to production with Infoblox
 - DNS, DHCP, IPAM
 - NetMRI is in production/use now by our networking group
- continued use of Nagios for monitoring
- continued use of Everbridge Emergency Notification System (ENS)
 - looking into additional modules for IT group specific use
- ongoing Cisco VoIP support and related maintenance and upgrades (e.g., taking Unity to 10.5)
- moving to Verizon only for in-building rebroadcast
 - still in flux - still trying to work with AT&T and T-Mobile
- rolling out Cisco 4510 replacements for 6500s (6509s EoL)
- moving project management structure from custom plugin code for Atlassian Confluence wiki to Atlassian JIRA (which now has a project and portfolio management option)
- implementing Layer 3 VPNs on UCAR routers for the purpose of private IPMI, management, and guest networks (considering other potential uses)
- completed install and production use of NTP servers by Endrun Technologies
 - UCAR now has 3 NTP reference servers that serve our core routers which in turn serve the closet switches; hosts get their time from our network devices
- reminder about RMCMOA attendance this summer at workshop - free - we cover travel:

Registration is now open for the Rocky Mountain Cyberinfrastructure Mentoring and Outreach Alliance (RMCMOA) Workshop that will be held at the Rocky Mountain Advanced Computing Consortium (RMACC) Symposium on the University of Colorado campus in Boulder, CO, August 11-13, 2015. Please register here:

<https://www.regonline.com/register/login.aspx?eventID=1665209&MethodId=0&EventsessionId=>

and choose this option:

Full Conference- RMCMOA : \$150.00

You will be prompted to submit a simple form to request travel funds.

Western

- Implementing new Admissions and Recruitment CRM (Hobsons)
- Implementing new Housing CRM (StarRes)
- Implementing new event management software for our University Center (EMS)
- Implemented new email retention/deletion policy, which includes deleting email
- Upgraded to on prem Exchange 2013
- Converted student payroll from paper to online using Banner Time entry
- Installed HD Video Conferencing Classroom
- Deployed JAMF Casper Suite
- Finished RFP and are now changing phone service providers
- Increased bandwidth from 300MB to 500MB
- Writing RFP for internet connection
- Move all outside doors to card access system
- Facility Membership Management Projects including online waivers
- Continue to work on Banner XE
- Ongoing wireless upgrades
- Remodeling Art and Music building