CSCF Objectives and Milestones

April 2016

Hardware Acquisition, Deployment, and Lifecycle Management

Plan, purchase, configure, deploy and manage lifecycle of equipment for offices, labs, and server rooms.

- **Objective:** annual hardware purchasing based on CSCF budget and evergreening priorities
  - W16 (INF): finish FY15 purchasing by UW's FY15 purchasing deadline *(ordered, waiting for shipments)*
  - F15 (INF): allocate remaining FY15 budget to evergreening projects *(not done)*

- **Objective:** accurate inventory database
  - F15 (INF): populate inventory data from salt-grain/ONA *(status??)*

- **Objective:** timely deployment of desktop/laptop equipment to incoming graduate students
  - S16 (INF/RSG) acquire and deploy equipment for incoming F16 students by 31 August, for equipment choices/locations identified by the grad office before 10 August
    - order in July based on grad office estimates and historical data

- **Objective:** CSCF-standard equipment configurations and images, updated on an annual cycle
  - W16 (INF): F16 image ready for use on May hardware deployments *(not done, but expected for May 1)*
  - W16 (INF): 2016 desktop, laptop, and server hardware configurations finalized *(done)*
  - F15 (INF): allocate remaining FY 2015/2016 budget for evergreening projects *(not done)*
  - F15 (INF): patch current workstation image for W16 deployments *(done)*
  - F15 (INF): tentative 2016 hardware configuration *(grad laptop (add touchscreen) and workstation configs determined, server config partially determined)*
  - F15 (INF): progress on adding drivers for 2016 hardware to current images (fallback image for S16) *(progress made)*

Machine Rooms

*Machine rooms for School and research equipment.*
• **Objective:** redundant machine rooms to host CS on-line services

• S16 (INF): improved bandwidth between CS machine rooms to support replicated services

### On-Line Services: Database Management

*Backend database services to support other on-line services and School operations.*

• **Objective:** Highly available MySQL cluster to serve non-teaching applications, including ST, inventory.
  
  ◦ W16 (INF): 3-node MySQL cluster in production and ready to accept data and host applications (Feb’16) *(largely done, except for documentation)*
  
  ◦ W16 (TOP/RSG): port non-teaching applications to new MySQL cluster *(done)*
  
  ◦ F15 (INF): general use MySQL cluster up and running, with ubikey application running off of it *(not done)*
  
  ◦ F15 (INF): automated build of an LXC MySQL base system *(progress, not done)*

### On-Line Services: Linux Computing Environments

*Linux computing environment(s) for teaching and for faculty/staff/grad general use.*

• **Objective:** track Ubuntu LTS releases in teaching and general environments (Ubuntu 16.04 in production by April 2017)
  
  ◦ S16 (INF): ubuntu 16.04 servers on-line, announced and available for end-user testing in both general and teaching environments
  
  ◦ W16 (INF): ubuntu14.04.student.cs in production *(done)*
  
  ◦ W16 (INF): ubuntu14.04.cs in production *(done)*
  
  ◦ W16 (INF): ubuntu14.04.cs is default for linux.cs *(happening last week of April)*
  
  ◦ W16 (INF/TOP): ubuntu14.04.student.cs is default for linux.student.cs *(happening last week of April)*
  
  ◦ W16 (TOP): transition teaching and course/specific software to 14.04 *(done, including marmoset built servers, seashell daemons, uC++, CS452 cross compiler)*
  
  ◦ F15 (INF): Upgrade linux.cs and linux.student.cs servers to Ubuntu 14.04 *(not finished, but 6 teaching, 2 general system are on-line (except maple))*

### On-Line Services: File Storage

*File storage for students, staff, and faculty.*
• **Objective:** highly-available network file service with limited capacity (4GB/undergrad, 20GB/grad, 50GB/faculty)

**On-Line Services: Email**

*Supplemental e-mail services to support of SCS-specific requirements.*

• **Objective:** SCS mail exchange service supporting local mail scripting and SCS-specific aliases.
  - S16 (INF): re-design and re-deploy existing exchange service, modernizing and avoiding current spam-forwarding problem.

**Teaching Labs**

*Management of teaching labs in support of academic programs.*

• **Objective:** database of usage statistics for all teaching labs
  - W16 (INF): accurate usage stats for thin client labs (MC 3022, MC 2061) *(done, but some doubts about veracity of data)*
  - F15 (INF): usage statistics for thin client labs (MC 3022, MC 2061) *progress, not finished*

• **Objective:** evergreen Lab computing equipment
  - S16 (INF/TOP): refresh (equipment, furniture) in MC 3005
  - S16 (INF/TOP): acquire/install new desks in MC3027
  - S16 (INF/TOP): evergreen MC3018 (real-time lab) equipment
  - S16 (INF/TOP): evergreen MC3007 – four new stations
  - W16 (INF/TOP): finish evergreening of MC3022 by replacing 5 missing work sites *done*
  - W16 (INF/TOP): planning August evergreening of 2nd and 3rd floor Mac labs *done*
  - F15 (INF): finish MC3022 update *not finished*

• **Objective:** ensure that lab equipment is functional and works well
  - S16 (TOP): have ISA desktops and all Mac labs managed by Caspar suite and upgraded to Mac OS 10.11
  - S16 (TOP/INF): as Mac labs are OS upgraded, move each to a separate VLAN
  - W16 (TOP): diagnose, fix if possible, very slow login and poor performance in labs *not fixed, but some progress on diagnosis*
  - W16 (TOP): establish a process for imaging Macs (in offices and meeting rooms, as well as in the labs) and for switching from image to image. *done*
• **Objective:** simple access to programming contest server from any general purpose lab
  ◦ S16 (INF): investigate and deploy system for providing remote contest server desktops on any machines in any of the general purpose (Linux, Mac) labs.

### Meeting Room Management
*Management of A/V in CS meeting rooms.*

• W16 (TOP): update signs, labels and incident management procedures, and establish procedures for responding to problems. *(partially done – signage is not yet in place)*

### Teaching/Administrative Services
*Custom services in support of teaching and School administration.*

• S16 (TOP): investigate waiting/ticketing system for new ISG student waiting area
• S16 (TOP): assist with CS transition to IST’s staff absence management system
• S16 (TOP): assist with SCS sharepoint reorganization
• S16 (TOP): investigate Faculty on-boarding with Sharepoint
• S16 (TOP): transition CS349 from svn to git

### Research Services
*Custom services in support of research activities.*

• **Objective:** “Paper” cluster – research infrastructure from surplus equipment, operated on a cost-recovery basis.
  ◦ W16 (RSG): rack the surplus hardware we have *(not done)*
• **Objective:** SCS research computing systems and grad/faculty desktops behind UW-mandated firewall
  ◦ S16 (RSG): finish research group consultations and have client net behind the firewall *(not done)*
  ◦ W16 (RSG): finish research group consultations and have client net behind the firewall *(not done)*

### SCS Software Projects: Exam Management System (EMS)
*System to support exam seating, printing, and marking.*

• **Objective:** on-going operation and management, client assistance, handled by TOP group
  ◦ S16 (RSG/TOP): continue Nick as primary point of contact for EMS help
○ W16 (RSG): broaden EMS support base by establishing non-Isaac point-of-contact for EMS 
  *(progress made)*

- **Objective:** on-going feature enhancement
  - S16 (RSG): testing of new EMS feature: push exam marks from Crowdmark into Learn
  - W16 (RSG): modify exam printing process to embed fonts to improve workflow with Media Services *(done)*
  - W16 (RSG): modify EMS to handle multi-version exams *(done)*

**SCS Software Projects: Seashell**

*ISG-developed system to support programming courses.*

- **Objective:** manage on-going operation of Seashell service
  - S16 (TOP): transition Seashell to a CSCF-managed service

**SCS Software Projects: Grad Visit Day System**

*System to support annual Grad Visit Day, including scheduling*

- **Objective:** ensure reliable system operation, customization and enhancements
  - W16 (RSG): updates for W16 visit day *(done)*

**SCS Software Projects: TA Evaluation System**

*Proposed system to support TA Evaluation workflow for the Grad Office.*

- **Objective:** design, develop, deploy, maintain
  - S16 (RSG): initial use and testing for S16 TA evaluations
  - W16 (RSG): create project plan for this system *(done, and system is implemented)*

**SCS Software Project: Teaching Preference System**

*System to collect faculty teaching preferences.*

- **Objective:** ensure reliable system operation, refine and enhance as needed
  - W16 (TOP): update preference information to reflect changes in UW scheduling process *(done)*
SCS Software Projects: OAT
_Backend database supporting advising tools, UW Portal, EMS, and other applications._

- **Objective:** ensure reliable system operation, enhance functionality
  
  - S16 (RSG): add admissions data
  
  - W16 (RSG): overhaul data import to use new data source (_blocked, not done_)
  
  - W16 (RSG): add admissions data (_not complete, on-going external challenges_)

SCS Software Projects: OGSAS
_System to support graduate admissions workflow._

- **Objective:** ensure reliable system operation, on-going feature enhancement
  
  - S16 (RSG): implement modifications requested by Assoc. Director Grad Studies
  
  - W16 (RSG): implement modifications requested by Assoc. Director Grad Studies (_not done due to lack of data feeds_)

- **Objective:** port OGSAS to OAT backend
  
  - S16 (RSG): port OGSAS to OAT
  
  - W16 (RSG): port OGSAS to OAT (_blocked, not done_)

CSCF-Internal Systems: Inventory
_System to track equipment inventory._

- **Objective:** ensure reliable operation, feature enhancements
  
  - W16 (RSG): version 3.5.1 bug fixes (_done_)
  
  - W16 (RSG): explore machine room mapping (_not done, some progress_)

CSCF-Internal Systems: Research Subscription System
_System to manage research support subscriptions, track time, generate bills_

- **Objective:** ensure reliable operation, feature enhancements
  
  - W16 (RSG): bug fixes (_done_)

CSCF-Internal Systems: Request Tracking
_System to track research support requests._
• **Objective:** move CSCF request tracking to RT by April 2017
  - S16 (RSG/INF/TOP): plan for moving CSCF request tracking to RT
  - W16 (RSG): make a decision about the future of current ST system (*not done*)

**Strategic Planning**

*Review and long-term planning of CSCF services.*

- S16 (INF/TOP): review remaining mail services in student environment and set objectives
- S16 (INF): develop long-term plan for backup and archiving
- S16 (INF/RSG): go/no-go decision on owncloud/file service project
- S16 (TOP/INF): review applications that remain on MySQL in the student environment and develop a plan for supporting them
- S16 (INF/RSG): review existing PostgreSQL/Odyssey infrastructure and develop a plan for managing it
- W16 (INF/RSG): go/no-go decision on owncloud/file service project (*not done*)
- W16 (RSG/TOP/INF): hold CSCF staff retreat, generate recommendations (*done*)

**Financials**

*Manage CSCF spending on staff, equipment, and services.*

- **Objective:** Produce annual equipment budget proposal for SCS.
  - W16 (INF): FY16 CSCF budget request to the School (*done*)
  - F15 (INF): draft of FY16 budget (*mostly done – pricing updates needed*)
- **Objective:** Timely and well-managed spending – avoid last minute spending.
  - S16 (INF/TOP/RSG): Develop spending plan for FY16 budget.
  - S16 (INF/TOP/RSG): At least 40% of CSCF budget spent by August 31<sup>st</sup>. F16 goal will be at least 80% spent before the December break.
- **Objective:** timely billing of researchers for research services
  - S16 (RSG): S16 bills out by the end of May 2016
  - W16 (RSG): F15 and W16 bills out in early Feb'16 (*done*)