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:** 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 annual hardware purchasing based on CSCF budget and evergreening priorities
  ○ S16 (INF): spend at least 40% of CSCF’s FY16 budget.
  ○ 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: E-Mail
Supplementary mail services for SCS.

- **Objective:** mail exchange service to handle incoming mail to @cs addresses, supporting local scripting and mail aliases.
  - S16 (INF): modernize existing service to avoid spam relay problems and to rely on IST to handle out-going mail from mail.cs.uwaterloo.ca if possible.

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
Objective: allow desktop equipment in all SCS general-purpose teaching labs to be used as thin clients for access to programming contest server

- S16 (INF): Design and deploy a mechanism to support this in the Nettop and 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): transition CS349 from svn to git

### Research Services

**Custom services in support of research activities.**

- **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)*
- **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
  ◦ 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)*