

# 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 2<sup>nd</sup> and 3<sup>rd</sup> 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: 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*)