

# CSCF Objectives and Milestones

*January 2017*

## **Hardware Acquisition, Deployment, and Lifecycle Management**

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

- Objective: timely deployment of desktop/laptop equipment to incoming graduate students
  - W17 (INF): desktop equipment prepared for assignment to incoming S17 grads by April 15<sup>th</sup>, based on March 1 best estimate of requirements
  - F16 (INF/RSG): acquire and deploy equipment for incoming W17 grads before the holiday break, for equipment choices/locations identified by the grad office before 2 December (*not done - we did not have info from the grad office by 2 December*)
  - F16 (INF): purchase grad equipment for W17 in mid-October, based on best estimates of requirements available at that time, so that all equipment is here by end of November (*done - equipment is assigned for all incoming we know of for January*)
  - 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 (*done – 12 students*)
- Objective: CSCF-standard equipment configurations and images, updated on an annual cycle
  - W17 (INF): new (Fall 2017) Win10/Ubuntu image ready for use on May desktop deployments
  - F16 (INF): patch the current (Win10/14.04) image for W17 deployments (*done*)
  - F16 (INF): tentative 2017 hardware configuration (*done*)

## **Machine Rooms and Server Infrastructure**

*Machine rooms and infrastructure 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 (*mostly done - 40 Gb links in place between two pairs of rooms*)
- Objective: rationalize CS networks
  - F16 (INF): server vlans routed on server room switches, client vlans routed on building

aggregation switches (*not done, not a priority for W17*)

- Objective: flexible, up-to-date server infrastructure
  - W17 (INF/TOP) no SCS servers running end-of-life ubuntu 12.04
  - F16 (TOP/INF) migrate/update fms12.cs from Vmware4 to Vmware5 (*done*)
- Objective: load balancing and failover for critical CS on-line services
  - F16: (INF): deploy redundant load balancing service (*done*)

## **Teaching Labs**

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

- Objective: usage statistics for all teaching labs
  - W17 (INF/TOP): Director-accessible tabular usage data (room, time, count) for all MC labs, with on-going updates and no discard of old data
- Objective: evergreen Lab computing equipment
  - W17 (INF/TOP): acquire/install new desks in MC3027
  - W17 (INF/TOP) – prepare project plan for evergreening MC3003 in August
  - S16 (INF/TOP): refresh (equipment, furniture) in MC 3005 (Mac lab) (*done*)
  - S16 (INF/TOP): acquire/install new desks in MC3027 (Mac lab) (*deferred*)
  - S16 (INF/TOP): evergreen MC3018 (real-time lab) equipment (*done*)
  - S16 (INF/TOP): evergreen MC3007 (graphics lab) – four new stations (*partially done, partially deferred*)
- Objective: ensure that lab equipment is functional and secure
  - W17 (TOP): investigate alternatives to punch key code access to labs, to simplify code management
  - F16 (TOP): docs for external users explaining what's available in the teaching labs (*not done, cancel*)
  - F16 (TOP): incorporate monitoring systems (Nagios) into Caspar admin interface (*done??*)
  - S16 (TOP): have ISA desktops and all Mac labs managed by Caspar suite and upgraded to Mac OS 10.11 (*done*)
  - S16 (TOP/INF): as Mac labs are OS upgraded, move each to a separate VLAN (*done*)
- Objective: simple access to programming contest server from any general purpose lab

- F16 (INF): system for providing remote contest server desktops available for use in Mac labs for F16 contests (*mostly done, some unresolved issues with Mac xserver hanging*)
- Objective: lab for use by CS coursework Mmath students
  - W17 (INF/TOP) update work-sites in DC3335 coursework MMath lab (1/3 Mac, 1/3 dual-boot PC, 1/3 power/networking only)
  - F16: (INF/TOP) plan for refurbish of coursework Mmath lab, and move to new space once identified (*new space not known yet*)

## **Meeting Room and Public Space Management**

*Management of A/V in CS meeting rooms.*

- Objective: A/V for grad classrooms and meeting rooms
  - W17 (TOP/INF): install podium monitor in DC2585
  - W17 (INF/TOP): plan, get approval for, and deploy video upgrade in DC2568 grad classroom
  - F16 (TOP): plan, get approval for, and deploy video upgrade in DC2568 grad classroom (*not done*)
- Objective: Manage and maintain SCS public display boards
  - F16 (TOP) – plan and obtain approval for third SCS public display, in Great Hall (*cancelled*)

## **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.
  - W17 (TOP): implement auto-restart for HA-MySQL

## **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
  - W17 (INF): [linux.cs](#) and [linux.student.cs](#) refer to ubuntu 16.04 servers
  - S16 (INF): ubuntu 16.04 servers on-line, announced and available for end-user testing in

both general and teaching environments (*not done, but close*)

## **On-Line Services: Teaching Systems**

*Systems for marking, assignment submission, and other teaching-related tasks.*

- Objective: manage on-going operation of Seashell service
  - S16 (TOP): transition Seashell to a CSCF-managed service (*done*)
- Objective: manage and maintain Markus
  - W17 (TOP/INF): [update assignments.student.cs container to 16.04](#)
  - F16 (TOP): upgrade Markus to version 1.2 (*done, upgraded to 1.4*)
  - F16 (INF/TOP): update assignments.student.cs container (12.04 to 16.04) (*deferred to April 2017*)
  - F16 (INF/TOP): saltify markus and marmoset deployment onto assignment.student.cs (*deferred to April 2017*)
- Objective: manage and maintain Marmoset
  - F16 (TOP): configuration improvements to Marmoset to improve reliability (*progress*)
- Objective: ISG server for CS200
  - F16 (TOP) decommission and shut down Oscar, old ISG server for CS200 (*done*)
- Objective: support phones for CS446 and other courses
  - W17 (TOP): [acquire ThinkingApe-funded phones, and develop plan for managing them beyond W17.](#)

## **On-Line Services: File Storage**

*File storage for students, staff, and faculty.*

- Objective: highly-available network file service (NetApp) with limited capacity (4GB/undergrad, 20GB/ grad, 50GB/faculty)
- Objective: highly-available, performant, high-capacity file service (DFS) for SCS faculty, staff, grads
  - W17 (INF/RSG/TOP): [Director-accessible downtime records \(start time, duration, planned/unplanned,reason\) for DFS and FSS services, regularly updated and not discarded](#)
  - W17 (INF/RSG): [DFS in production under FSS](#)
  - F16 (INF/RSG): DFS in production under FSS (*not done, progress*)

- Objective: file syncing/sharing (FSS) service for SCS faculty, staff, grads
  - W17 (INF/RSG): soft roll-out of FSS service to SCS
  - F16 (INF/RSG): roll-out of FSS service to SCS (*not done, progress*)
- Objective: reliable Samba service
  - F16: (INF): Redundant samba service for both teaching and general environments (*done*)

## **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.
  - W17 (INF/TOP): review, re-design and re-deploy existing (MX) exchange service, modernizing and avoiding current spam-forwarding problem.
  - F16 (INF): re-design and re-deploy existing (MX) exchange service, modernizing and avoiding current spam-forwarding problem. (*not done*)
  - S16 (INF): re-design and re-deploy existing exchange service, modernizing and avoiding current spam-forwarding problem. (*not done*)

## **On-Line Services: WWW**

*Web presence for SCS and CSCF*

- Objective: refresh/upgrade CSCF web presence
  - F16 (TOP/RSG) - plan content of revised site (*not done*)
  - F16 (TOP/RSG) - decision about moving CSCF web to WCMS (*not done*)
  - F16 (TOP/RSG) - WCMS training for at least one staff (*not done*)
- Objective: support CS web presence
  - W17 (INF/RSG) – deploy Ubuntu-16.04 Apache 3-node cluster
  - W17 (TOP/RSG) – migration of CS WCMS content from Math to UW
  - F16 (TOP/RSG) – migration of CS WCMS content from Math to UW (*not done*)

## **Teaching/Administrative Services**

*Custom services in support of teaching and School administration.*

- S16 (TOP): investigate waiting/ticketing system for new ISG student waiting area (*cancelled*)

- S16 (TOP): assist with CS transition to IST's staff absence management system (*done*)
- S16 (TOP): assist with SCS sharepoint reorganization (*not done, not client priority*)
- S16 (TOP): investigate Faculty on-boarding with Sharepoint (*not done, not client priority*)
- S16 (TOP): transition CS349 from svn to git (*done*)

## **Research Services**

*Custom services in support of research activities.*

- **Objective:** “Paper” cluster – research infrastructure from surplus equipment, operated on a cost-recovery basis.
- **Objective:** SCS research computing systems and grad/faculty desktops behind UW-mandated firewall
  - F16 (RSG): get remaining research nets behind the firewall (*done*)
  - S16 (RSG): finish research group consultations and have client net behind the firewall (client nets done, most research nets are 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
  - W17 (RSG): PoC for EMS for other Depts: Accounting & Financial Mgmt, Chemistry, Engineering, Stats, Distance – posted on the Odyssey EMS help page.
  - F16 (RSG): PoC for EMS for other Depts: Accounting & Financial Mgmt, Chemistry, Engineering, Stats, Distance – posted on the Odyssey EMS help page. (*not done - there is a page of contacts, but it is not linked and some are confirmed*)
  - S16 (RSG/TOP): continue Nick as primary point of contact for EMS help (*done*)
- **Objective:** on-going feature enhancement
  - W17 (RSG): revamped EMS UI is live
  - F16 (RSG): revamp EMS UI (supervised by Daniel) (*not done, progress. Beta is live.*)
  - S16 (RSG): testing of new EMS feature: push exam marks from Crowdmark into Learn (*done*)

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

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

- Objective: ensure reliable system operation, customization and enhancements

## **SCS Software Projects: TA Evaluation System**

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

- Objective: design, develop, deploy, maintain
  - F16 (RSG): solicit feedback on TA evaluation system, propose any Phase 2 changes (Isaac) (*not done, not a priority for W17*)
  - S16 (RSG): initial use and testing for S16 TA evaluations (*done*)

## **SCS Software Project: Teaching Preference System**

System to collect faculty teaching preferences.

- Objective: ensure reliable system operation, refine and enhance as needed

## **SCS Software Projects: OAT**

*Backend database supporting advising tools, UW Portal, EMS, and other applications.*

- Objective: ensure reliable system operation, enhance functionality
  - W17(RSG): all raw data inputs made available in the OAT DB for querying
  - S16 (RSG): add admissions data (*not done, external challenges*)

## **SCS Software Projects: OGSAS**

*System to support graduate admissions workflow.*

- Objective: ensure reliable system operation, on-going feature enhancement
  - F16 (RSG): solicit feedback, propose new features if needed (*not done, not a priority for W17*)
  - S16 (RSG): implement modifications requested by Assoc. Director Grad Studies (*done*)
- Objective: port OGSAS to OAT backend
  - S16 (RSG): port OGSAS to OAT (*not done, blocked on data availability*)

## **CSCF-Internal Systems: Accounts Management**

*Manage and utilize accounts data for CS students, faculty, and staff*

- Objective: exploit OAT database for accounts data

- F16 (INF/RSG): get course enrollment (group) data in Directory Service from OAT DB (*not done, some progress*)

## **CSCF-Internal Systems: Inventory**

*System to track equipment inventory.*

- Objective: ensure reliable operation, feature enhancements

## **CSCF-Internal Systems: Research Subscription System**

*System to manage research support subscriptions, track time, generate bills*

- Objective: ensure reliable operation, feature enhancements
  - W17 (RSG): prepare subscription system to support annual billing
  - F16 (RSG): modify subscription system as necessary for revised billing model (*unnecessary*)

## **CSCF-Internal Systems: Request Tracking**

*System to track research support requests.*

- Objective: move CSCF request tracking to RT by 1 May 2017
  - W17 (RSG/TOP/INF): RT goes live (all new requests and updates in RT) on 1 May
  - W17 (RSG/TOP/INF): fewer than 50 open requests per staff member by term's end, and none assigned to non-staff
  - F16 (RSG/TOP/INF): RT replacement for ST system in test, with sample queues and staff dashboards (*not done*)
  - S16 (RSG/INF/TOP): plan for moving CSCF request tracking to RT (done - #103960)

## **Strategic Planning**

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

- W17: (INF/RSG) develop plan for SCS PostgreSQL servers
- F16: (INF/TOP) develop printing support plan (*not done*)
- F16 (TOP) investigate and possible deploy/migrate on campus Slack alternative (*have mattermost test server*)
- S16 (INF/TOP): review remaining mail services in student environment and set objectives (*not done*)



- S16 (INF): develop long-term plan for backup and archiving (review done, plan not done)
- S16 (INF/RSG): go/no-go decision on owncloud/file service project (done)
- S16 (TOP/INF): review applications that remain on MySQL in the student environment and develop a plan for supporting them (not done)
- S16 (INF/RSG): review existing PostgreSQL/Odyssey infrastructure and develop a plan for managing it (review done, plan not done)

## **Financials**

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

- Objective: Produce annual equipment budget proposal for SCS.
  - W17(INF/RSG/TOP): final FY17 budgets to SCS
  - F16 (INF): draft FY17 budget (not done)
- Objective: Timely and well-managed spending – avoid last minute spending.
  - W17 (INF/TOP/RSG): complete FY16 equipment spending
  - W17 (TOP/INF/RSG): develop a process for managing staff budget
  - F16 (INF): At least 85% of CSCF budget spent by 31 December (*not done, progress – about 70% spent through November*)
  - S16 (INF/TOP/RSG): Develop spending plan for FY16 budget. (*done #676380*)
  - S16 (INF/TOP/RSG): At least 40% of CSCF budget spent by August 31<sup>st</sup>. (*done*)
- Objective: timely billing of researchers for research services
  - W17 (RSG): combined F16/W17 bills distributed in Jan 2017
  - F16 (RSG): F16 billing under new billing model by end of October (*not done, progress*)
  - S16 (RSG): S16 bills out by the end of May 2016 (*done, but at end of August*)