

Harvard Medical School
Information Technology
Operating Plan
2010

Introduction

This document outlines the Harvard Medical School Information Technology 2010 Operating Plan. Highlights include:

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- ⑩ Enhanced support for the research community including advanced storage infrastructure, high performance computing, and scientific applications
- ⑩ A focus on administrative applications needed to support workflow and compliance requirements
- ⑩ Implementation of the next generation of multimedia tools to support the educational mission of HMS.

We developed this Operating Plan based on discussions with our customers within HMS. We will use this plan throughout the year as a yardstick to evaluate our performance in meeting our goals. All levels of staff have contributed to the Operating Plan and are committed to seeing that these promises to the HMS community are fulfilled.

It is very important to us that the customers of Harvard Medical School are fully aware of our activities and plans. We will keep you informed about our progress on the Operating Plan throughout the year. We value your feedback and welcome any comments or questions on the initiatives described in this plan.

Sincerely,

John D. Halamka MD

Administrative Applications

Leader: Patricia Beckett

Strategy: Provide central management and support of administrative applications.

Office of Research Integrity

- Design COI system that will be used by HMS and affiliates. This application will be integrated into Profiles.
- Implement Committee on Microbiological Safety (COMS) training and tracking application.

Office of Faculty Affairs and Services

- ⑩ Implement Professorial Promotions tracking application.
- ⑩ Implement tools that improve the efficiency of the Promotions and Reappointment (P&R) process.

Financial Operations and Analysis

- ⑩ Implement Web Space, a survey tool used by members of the research community to document their space usage. Survey data are needed for analysis done in preparation for indirect cost rate negotiations.
- ⑩ Implement enhancements to Medical Area Equipment System (MAES). Additional data are need for analysis done in preparation for indirect cost rate negotiations
- ⑩ Participate in the configuration of the University's new budget system and in the specification of reporting requirements. Support the implementation and rollout at HMS.

Office of the Dean

- ⑩ Implement technology toolset to support LCME reaccreditations process.

Continuing Medical Education

- ⑩ Implement iMis, software suite used in managing CME services and functions

Human Resources

- ⑩ Implement executive dashboard for HR analytics

Communications and External Affairs

- ⑩ Implement new HMS public website using a content management system

Staffing:

Executive Director (Patricia B)

Associate Director (Kellie L)

2 Application Analysts (Jeff R, George R)

Client Services

Leader: Marcos Athanasoulis

Strategy: Provide centralized support and desktop management services with local departmental coordination for the administrative and research communities and for HMS students.

- ⑩ Continue to enhance the desktop support model to meets the needs of the faculty, staff and students including reporting on a variety of support metrics
- ⑩ Enhance the support request and tracking system, especially those enhancements which improve workflow and reduce email volume for the users.
- ⑩ Work with app dev and administrative apps on a new web platform for the IT website
- ⑩ Expand Help Desk services to include deeper services and cover more areas
- ⑩ Facilitate the process of documenting and ensuring consistency across the escalation procedures used within the IT operations
- ⑩ Continue to offer training services which provide high value for the community including brown bag sessions and some research imaging training and support
- ⑩ Take on project management and account management for key administrative projects and customers
- ⑩ Continue to serve as the client liaison for IT project roll-outs such as online storage 2.0
- ⑩ Work with HMS faculty and PME staff to continue to provide optimal computing services for students
- ⑩ Facilitate the deployment of new training rooms in the Countway Library
- ⑩ Transition to a pay for printing model for student computing
- ⑩ Increase use of system imaging and streamlined system management to increase efficiency

Staffing:

Manager (Jason O)

24 Client Services Representatives

Training coordinator (Lauren K)

Help Desk supervisor (Aun E)

Student Computing Manager (Lee H)

2 Help Desk analysts

Chief Technology Officer

Leader: Griffin Weber

Strategy: To provide innovative technology that supports the business needs of HMS stakeholders

- Expand Catalyst Profiles so that it becomes a Harvard-wide faculty research database combining different data sources across the University.
- Develop strategic plans on how to leverage Profiles for HMS administrative applications, such as conflict of interest and faculty promotions.
- Design administrative reporting dashboards that provide integrated views of the various types of data stored in the HMS data warehouse, Profiles, and MyCourses/eCommons.
- Assist with the selection of content management systems for CME and HMS public websites and integration of these tools with MyCourses/eCommons.
- Evaluate administrative workflow software products and customizations needed for HMS activities, such as LCME reaccreditation and faculty promotions.
- Support CTSA activities by maintaining the HMS IT Catalyst Portal modules, developing central i2b2/SHRINE tools, and generating administrative reports (e.g., social network analysis) for Catalyst leadership.
- The following are grant-funded projects for FY10:
 - a) Catalyst Pilot Grant for adding temporal queries to i2b2. [with CHB, funding started in April]
 - b) Federated Interdisciplinary National Discovery of Experts in Research (FINDER) - Implementing Profiles (or similar software) at 15 institutions across the country and connecting these through a federated query tool. HMS IT would additionally create and host a central portal for this project. [with UCSF, pending, starts in October, 6 new FTEs]
 - c) Creating "team building" tools within Profiles. This would give certain Harvard faculty access to advanced search tools for finding collaborators and analyzing teams (e.g., physical distance between offices, similarity of publications among group members, etc.).

Educational Applications

Leader: Jason Alvarez

Strategy: Educational Technologies will create the tools necessary to offer content management, learning management and knowledge management to the HMS community. Administers computing resources and provides support for technical resources used by students and faculty as it relates to the HMS Curriculum.

Medical Education

- Online Grading
- Exchange Clerk Online registration
- Course Revision Application Phase II
- Faculty Disclosure
- CHA PCE Logbook data feed
- Student Self Services (add/drop, Reports)
- MessageMe requirement/enforcement of students
- Curriculum Map
- Assignment Upload
- Virtual Microscopy search catalog

Database Services

- Migrate all Oracle to 11G
- Monitor production rollout of HSDM AXIUM/Test Disaster recovery
- Duplicate HMS reporting server/migrate to SQL 2008
- Migrate 2005 servers to 2008(start with community hosting)
- Migrate to Filemaker 10
- Install/configure DB performance monitoring

Web Services

- Third Brigade Implementation (Transition to prevent mode)
- Retire Student Web/Migrate ARCM site to community hosting
- Migrate PDF generation to VM
- Enable Kerberos for TFS/SharePoint
- Listserv transition to Messaging Group

Media Services

- ⑩ Institutionalizing Web Conferencing
- ⑩ Implement approved staffing plan
- ⑩ Rollout Audience Response System
- ⑩ Upgrade Digital Video Infrastructure(Streaming H.264/encoding)
- ⑩ 5 Year Media Infrastructure Plan

Other applications/projects

- Online Storage .NET
- Scantron Support
- CME Migration support
- Annual renewal of self-registered accounts

Staffing:

Director (Jason A)

5 Web programmers (Ron R, Michael F, Rob P, Kevin L., Steven T)

1 Web Application Quality Assurance Specialist (Jim Buckley)

Application Systems Analyst (David B.)

IIS Administrator (Melissa K.)

Web Application Support Associate (Steve W.)

2 Database Administrators (Joseph E, Lyson Ludvic)

Finance and Administration

Leader: Patricia Beckett

Strategy: Work closely with IT managers to create operating and capital budgets. Managers will meet monthly with Finance and Administration to review progress on budgets and will be held accountable for variances.

- ⑩ Implement monthly variance reporting so that managers can more accurately manage their budgets
- ⑩ Collaborate with FOA and Cambridge to develop capital budgets in support of networks, servers, desktops and storage

Staffing:

Business Manager

Administrative Assistant

Production Operations

Leader: Steve Martino

Strategy: Provide 24 hour a day, 7 days a week operational and technical support for the networks and cabling infrastructure, servers, storage and backup services required by the entire HMS community. Telecommunications also manages and maintains voice mail, call management systems, and billing systems.

Computer Operations

- ⑩ Migrate EMC NAS to Isilon NAS and retire EMC NAS Infrastructure
- ⑩ Migrate and retire all remaining tape backups.
- ⑩ Design and implement new Markley Data Center space based on Research and Administrative requirements.
- ⑩ Retire AFP Storage Service
- ⑩ Fully document disaster recovery procedure manual
- ⑩ Design new archive platform (replacing tape backup) to address infinite retention requirements and persistent data sets

Windows Servers and Messaging

- ⑩ Lifecycle manage all servers to a 5-year lifespan.
- ⑩ Re-Stamp all EMC File Systems.
- ⑩ Enhance the IT Alert Notification Services.
- ⑩ Expand deployment of VMWare to optimize power and CPU utilization.
- ⑩ Replace Symantec AV with Microsoft Forefront.
- ⑩ Upgrade WSUS Servers to latest version.
- ⑩ Delete disabled users in AD & Exchange

Network Operations

- ⑩ Continue rollout of Layer 3 Redundant Network.
- ⑩ Continue to rollout Airespace wireless to the Quad.
- ⑩ Continue to retire all Nortel hardware.
 - Countway Library
 - Warren Alpert Building
 - Dental School
- ⑩ Investigate and replace existing Cisco Firewalls.
- ⑩ Investigate and replace existing IDS/IPS systems
- ⑩ Update code on SSLVPN solution to support IE 8
- ⑩ Investigate and propose alternatives for Lucent QIP DNS & DHCP

Telecommunications

- ⑩ Implement Category 6 Wiring Upgrades
 - Countway Library
 - Warren Alpert Building
 - Dental School
- ⑩ Design and Implement fiber, copper and telephone infrastructure for CLSB
- ⑩ Design and Implement fiber, copper and telephone infrastructure for 180 Longwood
- ⑩ Work with departments to consolidate phones

Staffing:

Director (Steve Martino)

Manager, Network Operations (John Batista)

3 Network Analysts (Nick P., Lucas F., Open Position)

1 Security Officer (Joe Z)

Manager, Computer Operations (Glenn Fuller)

2 Computer Operations Administrator (David B., John M.)

2 Storage Analysts (Paul W., Steven G.)

Manager, Windows Servers and Messaging (David Orlandella)

2 Windows System Administrators (Cal M., Eric O.)

2 Exchange Administrator (Jeffrey P., Birgit K.)

Manager, Telecommunications (Leanne Dunbar)

2 Telecommunications Technician (Brian K, Robert M)

1 Telecommunications Analyst (Valerie K)

1 Staff Assistant II (Christine B)

Research Information Technology Group

Leader: Marcos Athanasoulis

Strategy: Research Information Technology will provide the necessary operational support to the research community. Research Information Technology will also serve an important liaison role, building bridges between the research community and core IT operations to foster the introduction of enterprise technologies into the research community and to retire departmental systems, where advantageous to do so

- ⑩ Implement specific aims for the i2b2 dissemination core including improving and maintaining the software dissemination portal (final year unless we win competitive bid)
- ⑩ Provide ongoing research IT operational support for Systems Biology and ICCB Longwood and soon the Danuser lab and core
- ⑩ Provide systems support for research and computational organizations on and off quad such the Countway Center for Biomedical Informatics, Catalyst, WYSS, etc
- ⑩ Continue to provide and expand Orchestra to meet the computational and research IT needs of the HMS community as a high performance computing environment
- ⑩ Provide leadership in the Biomedical HPC field by convening a new cross-institutional collaborative that brings together research sites and vendors to create a funding mechanism for pilot initiatives to increase collaboration across institutional boundaries
- ⑩ Continue to improve, enhance and maintain the central installations of commonly used software packages including the generalized HMS Wiki and Request Tracker
- ⑩ Explore revisions to the affiliate service model to ensure appropriate use of HMS central resources
- ⑩ Provide desktop support for Linux based research systems
- ⑩ Take on project management and account management for key research projects and customers
- ⑩ Improve back-end infrastructure and automation of the Orchestra environment to increase efficiency of group and to provide even more reliable services
- ⑩ Seek new and innovative ways to fund Research Computing

Staffing:

Director (Marcos A)

Manager, Research IT Operations (TBD)

4 System administrators (Mark K, Bret, Andy B, Greg C)

1 web programmer (Tim McLaughlin, grant funded, part time, ending)