MSU Information Technology Environment Map

WORKING DRAFT, 3 March 2007
PURPOSE: The purpose of this "map" is to provide a reasonably comprehensive overview of the centrally-supported/available MSU information technology landscape. In any column pair, the left column names a functional need and the right column describes the current state of play.
NOTE: Not all elements noted on this map are under direct LCT management; many are the primary responsibility of other units, but LCT plays a role in operating or coordinating them. They are included here especially to provide a thorough overview of the MSU IT landscape.

VISION STATEMENTS

Academic Technology Environment Vision
(WORKING DRAFT initiated Sep 2006)

MSU's academic technology environment should…

- Support active learning and scholarship by students and faculty…
  - § Through instruction, study, research, creativity, outreach and engagement,
  - § At all levels of scholarship,
  - § Anywhere and any time
- Provide support for a variety of instructional techniques
- Make information readily accessible and useful for study and work
- Provide trust (security, compliance, consistency and integrity)
- Be available, robust and support business continuity

Enterprise Business Systems and Services Vision
(WORKING DRAFT initiated 2005)

MSU's enterprise business information systems should…

- Make data and information accessible and useful for work
- Provide trust (security, compliance, consistency and integrity)
- Be available, robust and support business continuity
- Have a coherent and consistent overall design and framework
- Streamline and automate business processes

DIRECT ACADEMIC SUPPORT
(Instructional; Research)

Access to needed knowledge resources	Library collection/access resources and facilities; MAGIC catalog system; Online library resources; CIC-shared online library project
Student and faculty workspaces for learning	Library student group high-tech workspaces; General Library space management. Micro computer labs
Tech-enhanced classrooms	Continuing build-out of new rooms, and upgrades of existing Concern regarding changing design needs
Course management	ANGEL (angel.msu.edu); contract renewal options through May 2012); LON-CAPA (lon-capa.msu.edu)
Eportfolio	ANGEL e-Portfolio system trial; LON-CAPAe-port functions; OSP stalled but not ready yet as a product
Web publishing	Andrew File System (AFS; afs.msu.edu) determining if new system is needed
Podcasting (broadly construed)	Interactive Video Services (ivs.msu.edu; division of MSU Broadcasting Services, provides support; investigating adding microphone systems to all tech classrooms to facilitate use of Camtasia
Video streaming	Real Helix server; ACNS
Classroom personal response systems	Multiple systems employed at faculty choice; considering selection of "preferred" system(s)
Creative video distribution channels	Open Student Television Network (OSTN)
High-performance computing	High Performance Computing Center (hpc.msu.edu)
Faculty and staff development	Virtual University Design and Technology (vuDAT) services, website, workshops (vudat.msu.edu); LCTTP (train.msu.edu); Instructional Tech brownbags and workshops
Online/blended instructional content design and development	vuDAT
Network -- external	Merit (MichNet); Michigan LambdaRail (MILR); CIC Chicago OmniPoP; Internet2 (Abilene and NewNet); National LambdaRail; CALEA compliance
Network -- internal	Network upgrades under design; Intrusion prevention implemented for security
Network -- wireless	Continuing deployment in campus buildings; Deploying mesh network for farms and research ponds
Video-conferencing	Breeze server; BCS-IVS; HD systems becoming available at reasonable cost for unit implementation
Media assets management/storage	BCS exploring
Video distribution	Campus cable TV Video over IP

ACADEMIC ADMINISTRATIVE APPLICATIONS

Student information	Student Information System (SIS) -- replacement project begins upon FIS-HRIS implementation
Catalog and Schedule of courses	COURSES system
Faculty instructional assignments	CLIFMS system
Faculty professional accomplishments tracking and effort reporting	CLIFMS system Outreach and Engagement Measurement System
Student transactional access to academic information	STUINFO data warehouse and related web user interfaces
Grades	GRADES system
Online (credit) enrollment	WebEnroll system
Advising and degree audit	Degree Navigator system; Advisor Scheduling system; Electronic Student Advising Folder system
Online non-credit enrollment	Jenzabar system (beta) under development
Student athlete academic compliance tracking	ATHLINEO system
Scholarship and financial aid	SAM system; Scholarship Application system
Online admissions	Admissions systems
Graduate student advisory committee tracking	New NRC-driven data system
Customer relationship management system to support online programs	NEEDED
Research administration	Kuali Research Administration (KRA) COEUS sandbox Go-live dates not yet established
Outreach and engagement activity inventory	OEMI system (Outreach and Engagement Measurement Instrument)
Transfer credit equivalencies	Transfer.msu.edu
International students	SEVIS, OISS/Info
Course and instructional evaluations	SIRS/SOCT; ratemycourse.msu.edu; soct.msu.edu
Student employment	Graduate Appointment System; SEAS (student employment authorization system; 1/07)

SERVICES

Helpdesk(s)	Library Distance Learning Services (LDLS); ACNS and AIS helpdesks; IMC classroom support line; servicestatus.msu.edu; computing.msu.edu
E-mail	mail.msu.edu; developing specs for new full-featured system; considering alternative approaches to provisioning of student e-mail
Storage	Andrew File System (AFS); exploring hosted SAN and other options
Data warehouses	MSUINFO; MSUDATA; MSU Financial Data Warehouse
Business intelligence / analytics	Administrators' Assistant - HR; new reporting and analysis services part of EBS projects
Identity management and Directory Services	Emerging via EBS projects
Credentialing	Emerging via EBS projects
Portal	Emerging via EBS projects
Workflow engine	Kuali Workflow MSU Forms Tracking Utility
Communications and information availability	MSU.edu home website and events.msu.edu (maintained in partnership with University Relations); Web design standards; Accessibility standards and tools (msu.edu/webstyle/index.html; msu.edu/webaccess); computing.msu.edu; it.msu.edu
Institutional archiving	University Archives and Historical Collections (archives.msu.edu) Developing plan for archiving of websites; Digital image (photo; document) archiving
Payment card processing	WebCredit system
Document imaging	By individual units currently; EBS projects will address coordinated enterprise approach
Data access tools	Document Viewer
Telephony	POTS via Centrex or Avaya PBX Limited VoIP
Voice mail	Unified messaging supported by Telecomm Services Locally-supported systems

INFRASTRUCTURE

Business continuity	Various projects
Data center(s) and hosting facilities/services	Planning for new data center to reduce business interruption risk; AIS and ACNS moving toward increasing commonality of services and support approach, incl. backup, monitoring, security, operations protocols, storage, helpdesk
Communications infrastructure	Optical fiber (other than for IP data services)

ENTERPRISE BUSINESS APPLICATIONS

Financials	Kuali Financial Systems (KFS); go-live targeted for July 2009
HR	Will implement vended product; go-live targeted for July 2009
Supply-chain (e-procurement, stores, etc.)	KFS – some functionality; will need to add or use alternative product for stores
Building and space inventory; Physical plant management	FAMIS system; GIS system
Work order management and tracking	FAMIS system
Endowments management	Endowments management system (Cambridge Assoc.); Scholarship endowments management system
Health and safety	Immunize system HASP system
Housing	RMS system

MANAGEMENT AND COORDINATION

Enterprise information stewardship:

Data coherence	Data models, data definitions, systems of record, data integrity; Emerging via EBS projects
System integration	Integration architecture, middleware and workflow design, policies and practices; Emerging via EBS projects
Data security and confidentiality	Managing Sensitive Data campaign ISO 17799 standards Sentinel Security system
Records management	Bus records (that start digital); Scanned documents; E-mail; Images and video; Web site content
Business rules coherence	Emerging via EBS projects
Data usability and business value	Emerging via EBS projects
System development life cycle methodology	Emerging via EBS projects
Governance, community and communications	See Governance section of map; also emerging via EBS projects
Policies	NEEDED: Revised AUP Individual data stewardship responsibilities
Leadership and professional development	LCT leadership characteristics; LCT participation in MSU leadership development programs; CIC CIOs leadership development program (potential)
Measurement and benchmarking	AD-HOC
Portfolio management tools	NONE
Policy library (single repository of policies; standard presentation formats; searchable, etc.)	NONE

GOVERNANCE AND COMMUNICATIONS

Broad-scope Information Systems and Technology Coordination Group	Design emerging via EBS projects
Advisory Committees and mechanisms (end-user focus)	CCSAC (Computing and Communications Systems Advisory Committees): Accomodating Technology Network and Communications Instructional Computing and Technology Computers in Writing Service and Outreach Technology Health Care Computing and Technology Sr Faculty Advisors and Coordinators: Instructional technology End-user business value Network Administrators Group Webmasters Group Administrative Data Users Group

Drill-down requests…
-- Strategic areas impacted
-- Prime contacts and collaborators
-- Status and timeline
-- Definitions or glossary
-- Search function