INTRODUCTION

The demand for IT services is growing each year, especially in higher education. However, the financial wherewithal for providing those services is not growing and in fact state support is declining in real terms. This is not a new problem. Since 2000, when EDUCAUSE began its annual Current Issues Survey, IT leaders in higher education have listed “Funding IT” in the top half of the Top-Ten Issues of strategic importance. And because this is not a new problem it is important to think strategically about the IT services that are provided at the University. This update to the Illinois State University IT Strategic Plan continues the process of planning in order to identify IT service priorities and to find ways to collaborate on the provision of those IT services.

For the purposes of this plan, the phrase information technology (IT) denotes the technologies used for processing, storing, and transporting information in digital form in support of teaching and learning, research and creative activity, and administration of the University.

This update lists four broad Goals for IT service delivery:

- Provide information technology infrastructure, services, and enterprise applications that help the entire university attain distinctiveness and excellence.
- Base IT service decisions on collaborative planning and data-informed assessment.
- Establish a model for the optimum combination of IT organizational structure and governance.
- Provide reliable, secure, scalable, and capable network and server access.

Until a Chief Information Officer (CIO) is hired, Goal 3 charges the IT Policy and Planning Council (Tech Council) to work collaboratively with IT staff, shared governance groups, and the VPs to develop a clear, empowered, and inclusive IT organizational and governance structure with a single locus of responsibility for IT on campus.

The Tech Council is developing a Tactical Plan that prioritizes action items and assesses the cost, responsibility, and timeline for most. This Tactical Plan will be available on the Tech Council website and updated quarterly so that the University community can keep informed about the status of strategic IT initiatives.
VISION

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MISSION

The University relies upon information technology resources to achieve its strategic goals articulated in Educating Illinois. IT units support this by working collaboratively, by following best practices for IT organizations, by developing and implementing appropriate policies and procedures, by building and maintaining the necessary infrastructure, by investing in appropriate hardware and software, and by providing for a trained, service-oriented support staff.

CORE VALUES

• Client focus—IT initiatives facilitate faculty, staff, students, administration, and programs in their endeavors to attain distinctiveness and excellence.
• Planning—Coordinated annual IT planning allows for careful IT resource utilization and avoids unnecessary duplication of IT services.
• Service—Excellent service is the top priority of all campus IT professionals.
• Collaboration—IT professionals throughout the University work collaboratively and inclusively to provide services tailored to local constituent needs.
• Professional development—Strong, consistent support for IT professionals is essential.
• Security—The security of personal and business information and secure access to the campus network and Internet for all is essential.
• Accessibility—IT is accessible for working, teaching, learning, research and creative activity to all members of the University community.
• Sustainability—IT strategy and decision-making processes incorporate sustainable computing principles that take into account the economic viability, social responsibility, and environmental impact of IT utilized on campus.
• Agility—IT solutions are flexible and adaptable.
• Transparency—The processes associated with evaluating IT solutions, vetting options, and funding will be open and inclusive.
GOALS

GOAL 1

Ensure that the University’s investment in IT supports the vision and goals of Educating Illinois and enhances teaching and learning, research and creative activity, service outreach, and administration. [President Bowman’s Goal 12 for 2011.]

Illinois State has a long-standing tradition of being in the forefront of pedagogical leadership and innovation. We commit to building on this tradition to use 21st century tools to facilitate excellence in all areas of the University’s mission. College graduates of the 21st century must have a depth and breadth of experience and facility with computers and other mediating technologies unimaginable 15 years ago; scientists, scholars, artists, and educators must adapt, adopt, and develop computing and related technologies as they develop and disseminate new knowledge in their classrooms, seminars, studios, and labs. The Tech Council is responsible for promoting research and development in innovative applications of new and emerging information technologies.

Action items

1. Increase the use of the campus learning management system to support on-site, blended, and online coursework and as a strategy for supporting teaching and learning in an emergency.
2. Expand the effective use of learning management software to support high-quality teaching, learning, and assessment initiatives in on-site, blended, and online courses and programs.
3. Install, maintain, and update appropriate teaching technologies in all classrooms.
4. Upgrade network wiring installed in all campus buildings.
5. Install, maintain, and update wireless access points across campus in sufficient numbers to ensure ubiquitous wireless Internet access.
6. Expand the existing Voice over Internet Protocol (VoIP) infrastructure and leverage it to introduce unified communications software to enhance faculty and staff productivity.
7. Facilitate access to information and services from mobile devices.
8. Adopt a proactive approach to the acquisition of software licensing to ensure that faculty, staff, and students have the software tools they need while minimizing costs and avoiding duplicate software licenses.
9. Provide faculty and staff with a basic computing system (computer, input device, monitor, access to printing, wired or wireless access to the Internet,VoIP phone) that is replaced at an interval appropriate to its use while maintaining compliance with IT security requirements as stated in the University’s Policy on Appropriate Use of Information Technology Resources and Systems.
10. Facilitate the adoption of exemplary uses of IT to support teaching and training.
• Provide access to instructional developers whose job it is to help faculty apply fundamental principles of instruction to the use of IT in courses.
• Provide access to trainers whose job it is to help faculty and staff learn how to use hardware and software.
• Provide faculty, staff, and students with Web-based IT training options available 24/7.
• Coordinate and facilitate training and communication among instructional developers housed in the Center for Teaching, Learning, and Technology and within departments, colleges, or divisions.

11. Design and start moving current enterprise architecture to the right-sized administrative enterprise architecture necessary to support products and services that take advantage of common, industry-leading platforms and applications.

12. Design and build the source-application-to-information layer utilizing the new enterprise architecture.
   • Select and implement the next module of the Enterprise Resource Planning (ERP) application (student, finance, or advancement) based on Illinois State priorities.
   • Create and deploy the Enterprise Data Warehouse.
   • Develop and implement a robust information management and business intelligence environment that allows for the institutionalization of an enterprise performance management program.

13. Create a customer relationship management matrix as one step towards becoming a strategic partner for the University by capitalizing on strengths, minimizing weaknesses, and positioning IT to leverage existing solutions and quickly respond to future needs.

14. Evaluate the effectiveness of computer labs.

15. Enhance the visibility of, and training and support for, academic technology applications for research.

16. Expand the ability of the Text Conversion Lab in the Office of Disability Concerns to provide in-house captioning services for videos required as part of coursework.

17. Provide the information technology environment necessary to prepare students for a rapidly changing workforce.

18. Support the IT-related requests in the University’s Distance Education Task Force Recommendations (December 1, 2009):
   • Strive to provide 24/7 Help Desk Support (or as close to that as we can get) via phone and email.
   • Increase staffing with expertise in technology related to online education.
   • Provide campus-wide software licensing for Web conferencing software.
   • Purchase an annual subscription to Quality Matters software and train staff in its use.

19. Provide remote access to digital audio, video, image, and text media to the campus community and beyond.

20. Integrate various digital media services designed to distribute content or be used as reference material to support the academic and administrative needs of the University.

21. Improve student’s access to view and maintain their personal and academic data.

22. Provide campus-wide access to room-scheduling software.

23. Provide campus-wide access to a digital faxing service.
The rapidly developing world of information technology presents both opportunities and challenges. One of the challenges is to identify what technologies are appropriate for the University to pursue when faced with limited financial resources. A continuous IT planning process can help colleges, departments, schools, and units be prepared to make the best use of limited financial and human resources. Assessing the impact of IT spending helps the University monitor the allocation of finite IT funds.

Action items

1. The IT Policy and Planning Council (hereafter Tech Council) will be responsible for ongoing IT strategic planning that updates the campus IT plan every three years. This ongoing IT planning will involve faculty, staff, and students through their participation in the Tech Council’s constituent and technical advisory committees. Updates to the IT Strategic Plan will align with Illinois State’s Strategic Plan Educating Illinois.

2. Create a process to systematically determine and respond to IT-client needs and initiatives.
   - Gather data pertaining to IT client needs from several short, focused IT Client Surveys as well as from other campus sources.
   - Include questions related to online education as part of the survey.
   - Tie the data gathered to the ongoing IT Strategic Planning process.
   - Communicate the results of this process to the University community.
   - Establish baseline measures and create benchmarking criteria.
   - Continuously assess the effectiveness of this process.

3. Encourage divisions, colleges, departments, schools, and units to create an IT plan that is in alignment with the campus IT Strategic Plan, focuses on local client needs, and leverages existing IT infrastructure and services. Progress on the local IT plan should be evaluated, revised as necessary, and disseminated annually.
IT transcends the traditional vertical administrative structures found in colleges and universities. Technology development in one area can affect other areas that may appear superficially to be unconnected. IT is like a “spider web, creating and allowing interdependencies among existing structures” (Hawkins, 2004). Thus, decision making regarding IT planning, priority setting, and funding cannot be made in isolation from a wide spectrum of information and input. Having a clear, empowered, and inclusive IT organizational and governance structure with a single locus of responsibility for IT on campus will provide the broader perspective necessary to assure the coordination of IT services and reduce costs by limiting duplication of technology resources and services.

A well-designed distributed IT support model facilitates cooperation, rewards collaboration, and fosters communication among all IT staff making it easier to coordinate IT services and limit duplication.

**Action items**

1. Refine the IT governance structure to ensure effective and efficient use of enterprise technology resources through the following:
   - Assess the role of the IT Policy and Planning Council in University IT Governance.
   - Establish the Data Stewardship and IT Services Council to focus on management of information as an institutional asset and to identify business needs and problems that arise as a consequence.

2. Design and analyze different models for moving from a decentralized to a distributed IT environment while making every effort to support unique IT needs. Identify the quantifiable pros and cons of each model and determine the return on mission of each.
3. Vet each of these models with the Tech Council and its advisory committees. Share the Tech Council-recommended model with the campus shared governance organizations.

4. Create an implementation plan to move to the new distributed IT environment that includes processes and procedures to ensure IT needs are met and strong, consistent support is provided for IT professionals in the following ways:
   - Opportunities for professional development.
   - A career advancement path for IT positions. Include rotational assignments between other units, where feasible, as part of advancement.
   - Closer inter-unit connectedness, and stronger coordination between cross-unit local technology initiatives through the Common IT Solutions Group.
   - Consistent evaluation parameters for supervisors of IT staff.
   - Continuing education of current and future IT professionals with the goal of nurturing and retaining top-notch IT professionals who are critical thinkers, innovative, nimble, and results oriented.

5. Implement the chosen IT organizational structure and governance model.

**GOAL 4**

The IT community will provide reliable, secure, scalable, and capable network and server access that supports the University’s academic and administrative systems.

Reliable, secure access to the University network and servers is essential to every facet of living and working at Illinois State. In an age of increasing identity theft, the security and confidentiality of personal and business data is of paramount importance. There are two key components needed to protect the University systems from unauthorized network access and to protect the confidentiality of data stored on servers from hackers and email and Internet-borne viruses, worms, Trojans and malware. Appropriate policies and procedures determining access to the network, servers, and data must be written and communicated to the University community, and the hardware and software that make up the systems themselves must be maintained regularly and expanded as demand for access grows.

**Action items**

1. Enhance computer, network, and data security and reliability.

2. Continue to update the University data centers in Julian Hall 152, Stevenson Hall 7D, and John Green Food Service Building 104 in order to ensure that mission-critical central IT services are expanded appropriately, adequately protected, secure, and follow environmentally sustainable practices.

3. Explore the feasibility of an off-campus data center that could serve as both a disaster recovery site and a secondary data center.

4. Implement a campus Operations Center designed to communicate network and system events and serve as a resource to IT staff to help reduce future outages or reduce the impact or duration of them.
5. Develop, communicate, and implement a model for the availability of consistent, up-to-date technology and a renewal and replacement cycle for the campus network infrastructure hardware and software to provide secure, scalable access to the campus network and Internet.

6. Develop, communicate, and implement a model for renewal and replacement of the campus systems infrastructure hardware and software that ensures the consistent availability of utility technologies like directory services, email, shared calendaring, Web page hosting, learning management software, the iCampus portal, storage, server hosting, databases, business (ERP) systems, and data warehouses.

7. Virtualize end-point and server hardware, where feasible and practical, and consolidate the location and management of server services from across the campus to reduce unnecessary redundancies, realize economies of scale, and reduce the environmental impact of servers.

8. Develop, document, and test business continuity plans for noncentralized units designed to ensure that critical systems maintained in these environments can be restored in the aftermath of a service-impacting event.

9. Reduce the environmental impact of all IT systems by purchasing Energy Star compliant equipment, Electronic Product Environmental Assessment Tool-certified equipment where possible, and using energy-saving settings by default.

10. Reduce the environmental impact of printing by planning for networked printing solutions.

11. Investigate private and public cloud computing opportunities and research current trends in Software as a Service (SaaS).
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