# IT GOVERNANCE PLANNING SUMMIT

**Date:** Tuesday, March 13th, 2012  
**Time:** 10am – 4pm  
**Loc:** iHotel Conference Center, UIUC Campus, Champaign, IL  
**Goal:** Collaborate on IT Governance and IT Strategic Planning at the University of Illinois

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tr>
<td>09:00 am – 9:55 am</td>
<td>Continental Breakfast and Registration</td>
<td>Illinois Ballroom</td>
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<tr>
<td>10:00 am – 10:15 am</td>
<td>Opening Remarks (Michael Hites)</td>
<td>Illinois Ballroom</td>
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<tr>
<td>10:15 am – 10:35 am</td>
<td>Overview of the Day’s Format, Goals, and Expectant Outcomes</td>
<td>Illinois Ballroom</td>
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<tr>
<td>10:40 am – 11:25 am</td>
<td>Panel Discussion: IT Governance at the University of Illinois</td>
<td>Illinois Ballroom</td>
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<td>11:25 am – 11:40 am</td>
<td>Host Campus Remarks (VP/Chancellor Phyllis Wise)</td>
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<tr>
<td>11:40 am – 11:45 am</td>
<td>Introduction into Breakout 1</td>
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<tr>
<td>11:50 am – 12:35 pm</td>
<td>Group Breakout 1: IT Governance at the University of Illinois</td>
<td>See Nametag, Group Assignments, and Map</td>
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<td>12:40 pm – 1:20 pm</td>
<td>Lunch</td>
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<td>01:20 pm – 01:40 pm</td>
<td>Open Discussion of Breakout 1</td>
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<tr>
<td>01:45 pm – 2:30 pm</td>
<td>Panel Discussion: IT Strategic Planning at the University of Illinois</td>
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<tr>
<td>2:30 pm – 2:40 pm</td>
<td>Introduction into Breakout 2</td>
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<tr>
<td>2:50 pm – 3:35 pm</td>
<td>Group Breakout 2: IT Strategic Planning at the University of Illinois</td>
<td>See Nametag, Group Assignments, and Map</td>
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<tr>
<td>03:45 pm – 04:15 pm</td>
<td>Open Discussion of Breakout 2 and Dessert Break</td>
<td>Illinois Ballroom</td>
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<td>Wrap-up Presentation and Evaluation</td>
<td>Illinois Ballroom</td>
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</table>
IT GOVERNANCE PLANNING SUMMIT

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Goal: Collaborate on IT Governance and IT Strategic Planning at the University of Illinois

To find your assigned room, match the numbers on your nametag to the tables listed below.
WELCOME to the 2012 IT Governance Planning Summit

Opening Remarks

Michael Hites
Executive CIO
University of Illinois
Why are we here today?

Collaborate on IT Governance

- IT Governance defines the processes, components, structures, and participants for making decisions regarding the use of IT

Collaborate on IT Strategic Planning

- IT Strategic Planning provides a framework for developing shared information technology strategies and initiatives at the University of Illinois

Today’s Participants

3 Campuses
- Chicago
- Springfield
- Urbana-Champaign

3 Campuses
- Faculty
- Students
- IT Governance Participants
- IT Professionals
Goals and Expected Outcomes for this Summit

Have a collaborative discussion regarding IT Governance

- Each campus at a different place with ITG implementation
- Optimize the use of scarce resources
- Embrace shared IT governance

Goals and Expected Outcomes for this Summit

Have a collaborative discussion regarding IT Strategic Planning

- Ensure that IT Planning aligns with university/campus/college plans
- Optimize the use of scarce resources to support campus and university goals
- Develop a plan to guide our actions
Integrated Planning

Integration of planning activities across the enterprise.

Academic Planning  
Financial Planning  
Integrated Planning  
Facilities Planning  
Information Technology Planning

Questions for Today

- What are the most important outcomes of a successful IT Governance process? How can success be measured?
- What is the most effective way to sustain collaborative decision making processes in ITG?
- How do we improve communication to constituents and between governance groups?
Questions for Today

- What are the highest priorities in these areas in the next 1-3 years and what strategies are required to get there?
- How can information technology help to accomplish these goals?

EDUCAUSE Top 10 IT Issues 2011

1. Funding IT
2. Administrative/ERP Information Systems
3. Teaching and Learning with Technology
4. Security
5. Mobile Technology
6. Agility, Adaptability, and Responsiveness
7. Governance, Portfolio/Project Management
8. Infrastructure/Cyberinfrastructure
9. Disaster Recovery / Business Continuity
10. Strategic Planning
**EDUCAUSE Top 10 IT Issues 2011**

**Governance, Portfolio/Project Management**
- Administrative/ERP Information Systems
- Teaching and Learning with Technology
- Security
- Mobile Technology
- Agility, Adaptability, and Responsiveness
- Infrastructure/
- Cyberinfrastructure
- Disaster Recovery / Business Continuity

**Strategic Planning**
- Funding IT
- Teaching and Learning with Technology
- Security
- Mobile Technology
- Agility, Adaptability, and Responsiveness
- Infrastructure/
- Cyberinfrastructure
- Disaster Recovery / Business Continuity

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**Gartner 2011 CIO Survey**

*Top Ten 2011 Higher Education CIO Strategies*

1. Developing or managing a flexible technology infrastructure
2. Delivering application and growth projects
3. Improving IT management and governance
4. Consolidating IT operations and resources
5. Reducing the cost of IT
6. Implementing e-commerce/e-channel solutions
7. Implementing cloud solutions
8. Enhancing IT security
9. Implementing IT process improvements
10. Expanding the use of information/intelligence
Positive factors for ITG effectiveness:
- Active design of ITG
- Ability of ITG participants to describe ITG accurately
- Frequency of participation, providing input, taking part in decision making
- ITG involvement in formal project review
- ITG involvement in institutional budgetary process
- Incorporation of measurement and review in ITG
**Initiative Governance and Strategic Working Groups**

- Initiative Governance
  - Unified Communication
  - Data Center Consolidation

- Strategic Working Groups
  - Shared Storage
  - Multimedia

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**IT Governance**

**UI – Univ. Administration**

- IT Priorities Committee (ITPC)
  - Cross Functional
    - Finance
    - Student
    - Human Resources
    - Business Intelligence & Performance Management
IT Governance

UI Technology Mgmt. Team

University Technology Management Team (UTMT)

Common Architectural Vision (CAV)

Information Security Committee

Business Intelligence & Performance Management (BI/PM)

IT Governance

UTMT

Roy Campbell
Professor, Computer Science (CS)

Farokh Eslahi
Associate Provost for Information Technology (UIS)

Cynthia Herrera-Lindstrom
Director ACCC – Computer Center (UIC)

Michael Hites
Associate Vice President (AITS)

Paul Hixson
Interim Chief Information Officer (UIUC)

Michael Jonen
Associate Vice President for Health Affairs (UIC)

Walter Knorr (Chair)
Vice President, CFO and Comptroller (UA)

New Positions

Pete Nelson and Terri Weaver, Co-Chair, IT Governance Council (UIC)
Paula Kaufman, Chair, IT Governance Committee (UIUC)
Chung-wei Lee, Chair, Academic Technology Committee (UIS)
Faculty Representative, TBD (UIUC)
Faculty Representative, TBD (UIC)
Faculty Representative, TBD (UIS)
**Strategic Planning**

“The continuous process of making present (entrepreneurial) risk-taking decisions systematically and with the greatest knowledge of the futurity; organizing systematically the efforts needed to carry out these decisions; and measuring the results of these decisions against the expectations through organized systematic feedback.”

Peter Drucker, Management: Tasks, Responsibilities, Practices
UI IT Strategic Planning

- Ongoing iterative process
- Working towards FY 13 plan
- People and groups from across the university involved
- Plans and documentation available

UI IT Strategic Planning

Executive Chief Information Officer

Executive IT Strategic Planning

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For more information, please visit the website at www.illinois.edu/itstrategicplanning.
IT Governance at the University of Illinois

Panel Discussion

Purpose of Panel Discussion

Examine different ideas and viewpoints of how to make the current and evolving IT governance processes more effective in order to maximize the value provided by our IT resources at the University.
Panelist Introduction

University of Illinois – Chicago

Dibyen Majumdar
Chair - ITGC – Administration
Senior Associate Dean, College of LAS
Professor, Dept. of Math Statistics and Computer Science

Saul Weiner
Chair - ITGC – Education
Senior Associate Dean for Educational Affairs, College of Medicine
Associate Professor, College of Medicine

Panelist Introduction

University of Illinois – Springfield

Chung-Wei Lee
Chair – Academic Technology Committee
Assistant Professor, Computer Science
Panelist Introduction

University of Illinois – Urbana-Champaign

Paul Hixson
Chair – IT Council
Interim Chief Information Officer

Ryan Young
ITGC Representative
Student Senate – UIUC

Panelist Introduction

University of Illinois –
University Administration

Tony Kerber
Chair – ITPC Human Resources
Senior Director HRIS Strategy, Human Resources
Information Systems
Panel Discussion Topics

- ITG Benefits
- ITG Challenges
- Goals
- Collaboration
- Priorities

2012 ITG Planning Summit

Host Campus Remarks

Phyllis Wise
VP/Chancellor
University of Illinois at Urbana-Champaign
IT Governance at the University of Illinois

Breakout Session One

Discussion Goal

Collaborate on how we make the current and evolving IT governance processes more effective.
Breakout Session One
Discussion Questions

- What are the most important outcomes of a successful IT Governance process? How can success be measured?

- What is the most effective way to sustain collaborative decision making processes in ITG?

- How do we improve communication to constituents and between governance groups?

Your group does not have to finish all the questions and you do not have to start at the first question.

Lunch
Breakout Session One

Open Discussion

IT Strategic Planning at the University of Illinois

Panel Discussion
Purpose of Panel Discussion

Discuss university, campus and college goals, priorities and strategies. Collaborate on how IT can best support these endeavors.

Panelist Introduction

University of Illinois

Ruth Watkins
Campus Dean Representative
Dean, College of Liberal Arts and Sciences - UIUC

Bob Sandusky
Campus Representative
Assistant University Librarian for Information Technology & Associate Professor - UIC

Larry Schook
Vice President for Research
Panelist Introduction

University of Illinois

Farokh Eslahi
Associate Provost, Information Technology
Chief Information Officer - UIS

Cynthia Herrera-Lindstrom
Interim Chief Information Officer - UIC
Director, ACCC - UIC

Paul Hixson
Interim Chief Information Officer - UIUC

Panel Discussion Topics

- Strategic Goals and Priorities
- The Role of IT
- Emerging Trends
IT Strategic Planning at the University of Illinois

Breakout Session Two

Discussion Goal

Collaborate on how to ensure that IT is aligning to the mission strategies of the university, campuses, and colleges.
Breakout Session Two
Discussion Questions

- What are the highest priorities in these areas in the next 1-3 years and what strategies are required to get there?
- How can information technology help to accomplish these goals?

Your group does not have to finish all the questions and you do not have to start at the first question.

Breakout Session Two
Open Discussion
2012 IT Governance Planning Summit

- Evaluations are located on your tables
- Your feedback will help us make improvements for next year
- 2013 Summit – March (tentative) at UIS

Thank You for your valuable contributions to today’s Summit!!
1. What are the most important outcomes of a successful IT Governance process? How can success be measured?
2. What is the most effective way to sustain collaborative decision making processes in ITG?

3. How do we improve communication to constituents and between governance groups?
2012 IT Governance Planning Summit Scribe Sheet
Group Breakout 2

The Role of a Scribe

A scribe:
- Captures and records the proceedings of the breakout sessions to assure the group can accomplish their goals.
- Documents what is discussed during the workgroup sessions.
- Helps the group create lists of important points.
- Summarizes the issues from time to time as to ensure they are documented correctly.
- Documents all issues, ideas, solutions, and resolutions provided by the workgroup.

1. What are the highest priorities in these areas in the next 1-3 years and what strategies are required to get there?
2. How can information technology help to accomplish these goals?
Introduction

This draft document creates a framework for recording shared information technology strategies and initiatives at the University of Illinois. It is designed to be a three-year IT plan that evolves with collaborative input along side other strategic plans throughout the University. This framework provides a means to work collaboratively to develop our IT goals, objectives, initiatives, associated metrics, and ongoing modifications to the plan.

In its current form, the document is in the early stages of development, and it is intended to be a starting point for discussion. In the coming months, the plan will be developed further with the feedback from groups and individuals across the University, including campus IT governance structures, our IT leadership program participants, faculty, students and anyone else who would like to participate. Our goal is to produce a document that demonstrates how shared information technology can support the strategic goals of the University.

I am grateful that many IT professionals from across the University have contributed to the development of this framework, and I hope to continue to receive your feedback in the coming months to refine this draft and create a plan that is the result of a combined University effort.

Comments, questions, and other feedback regarding this document are welcome at any time.

Michael Hites
Executive Chief Information Officer
hites@uillinois.edu
(217) 244-0102
Statement of Purpose

*Develop a University of Illinois Information Technology Strategic Plan for FY 2013*

This draft document creates a framework for recording shared information technology strategies and initiatives at the University of Illinois. It is designed to be a three-year IT plan that evolves with collaborative input along side other strategic plans throughout the University. This framework provides a means to work collaboratively to develop our IT goals, objectives, initiatives, associated metrics, and ongoing modifications to the plan.

**Mission**

We provide a wide range of information technology solutions and services to the University community that are innovative, accessible, timely, reliable, accurate, efficient, and responsive to customer needs. We collaborate to proactively identify opportunities, mitigate risks, plan future initiatives, and solve problems by leveraging all of our information technology resources and knowledge.

**Vision**

To be an engaged partner within our University community to advance the institution’s teaching, research, outreach, and administrative functions through innovative, cost-effective information technologies and services. We will be known for our leadership, integrity, and dedication to customer service.
**Research**

Research efforts across the University of Illinois in a wide variety of disciplines increasingly depend on a robust and sustainable research-computing environment. These resources include technical support staff who work directly with researchers as well as computing resources such as cutting-edge networking, high-performance compute clusters, large-scale data storage, data curation, specialized consulting, and other services. Other support includes improving research administration processes so more grants can be applied for, awarded, and administered with less effort.

Note: Feedback/input to be collected from ITG Research Committees regarding the vision summary

<table>
<thead>
<tr>
<th>Notes for the research computing environment:</th>
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<tbody>
<tr>
<td>• Discussion of start-ups and intellectual property transfer across units.</td>
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<tr>
<td>• Outside of supporting faculty research, there are staff members and students that also need research support. Access to research services is also how we attract faculty.</td>
</tr>
<tr>
<td>• For a vision, we want to increase the ease with which IT resources can be used to advance the discovery of new knowledge and the transfer of that knowledge into the 'real' world and economy. And need to describe how IT facilitates that.</td>
</tr>
<tr>
<td>• Access to resources that researchers need does not have to mean that IT staff are providing them. (e.g. Cloud computing resources)</td>
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<tr>
<td>• Help make compliance with NIH, NSF and other funding agency mandates as simple as possible for researchers</td>
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<tr>
<td>• Improving Grants Management? Monetary, publication, intellectual property, creation of businesses? What can we do to make it easier to allow faculty to achieve these things?</td>
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**Objective: Provide access to cyber infrastructure systems for faculty and researchers to support computation and data-intensive research capabilities.**

- Meet high performance networking needs of researchers. The University will buy, build, rent or otherwise create easy access for an increased bandwidth.
- Provide easy access to high performance computing and increased access to compute cycles. The University will buy, build, rent or otherwise create increased compute cycles.
- Provide ubiquitous, high-capacity data storage. Take advantage of contemporary storage options such as cloud computing using the sourcing portfolio that best meets the needs of the researchers.
- Implement a system for “inventory” of research equipment for faculty. Such a system could help optimize the use of equipment already at the university and prepare maintenance and replacement schedules for obsolete equipment.

**Objective: Provide access to contemporary and innovative cyber infrastructure services for faculty and researchers to support computation and data-intensive research capabilities.**

- Data Curation - Develop guidelines and services that allow for best practices for easy storage and access to high performance data sets. New data stewardship requirements are coming/have come to NIH and NSF research that the research community will have to meet.
- Prepare for “federated identity management’ and other enabling technologies for virtual organizations (from CIC).
<table>
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<tr>
<th>Objective: Provide pre-award and post-award grants management process support to researchers and research administration.</th>
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<tbody>
<tr>
<td>• <strong>Research Management and Administration Solutions</strong> - Implement enterprise wide set of systems and integrations to eliminate redundant systems and share data. Systems such as proposal generation, submission, tracking, reporting, as well as publication tracking systems and curriculum vitae management solutions will be implemented to provide common repositories for this information. These systems would focus to increase administrative productivity, reduce faculty workload and provide data for better analytics and additional positive exposure for research outcomes</td>
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<tr>
<td>• Implement an IP management system</td>
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<table>
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<tr>
<th>Objective: Provide improved continuous communication and education for researchers in the University system to increase awareness of the computing resources available and facilitate communication between research groups</th>
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<tbody>
<tr>
<td>• Create an online forum for discussion and idea exchange</td>
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<tr>
<td>• Have common campus collaboration tools, such as video-teleconferencing-equipped locations or classrooms to facilitate ad-hoc and recurring meetings</td>
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<tr>
<td>• Research IT Expo / Communication with researchers</td>
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<tr>
<td>• Informational Website</td>
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<tr>
<th>Objective:</th>
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- Enable cyber infrastructure support to all disciplines (from CIC).
Teaching and Learning

Our approach to pedagogy, when mediated by technology, should be part of the culture and the social contract we have with students. As a technology-rich university, we have deep knowledge and extensive IT resources that need to be harnessed to drive our ability to educate through and with technology. This includes online and blended learning methods to learning management systems, podcasting, e-books, and other digital content delivery and collaboration methods.

As a premiere research University we must consider that we attract a wide range of audiences, from those seeking traditional undergraduate and graduate degree programs to others who desire non-degree and continuing education options. These communities utilize different approaches to teaching and learning, and we must be proactive in anticipating emerging needs to create overall IT strategies. Partnering with faculty and students, we must redefine online, blended, and in-class modes as “learning”, realizing that we must equally support all of our students, regardless of their location or discipline. By re-framing our approach to how we support our constituents, we will invest in more scalable and efficient IT resources.

Our next generation IT services must seamlessly connect students and faculty using modern communication, computing, and teaching tools, both in physical classrooms and online. Physical learning spaces will be modern, but also flexible to support the pedagogical styles of various disciplines. Robust networks, internal to, and between Illinois campuses, will enable greater sharing of instructional resources and digital assets. IT services will collaborate with faculty and students to support virtual labs, digital media, and standardized instructional resources to remove technology limitations from our learning environment.

The partnership between the IT community and instructors will go beyond providing online tools. The service relationship must also include support and knowledge exchange that enhances learning. A focus on training and documentation related to intellectual property, copyright, content creation, and accessibility will form the basis of the new collaborative partnership between IT and faculty. IT staff must also partner with students in new ways, to better understand their needs and to provide them with the documentation and training they require to use University resources to enhance their learning experience.

The University’s IT service groups are committed to providing technically current, reliable, and accessible resources to the students, faculty, and staff who depend on and use these resources. IT services must stay abreast of emerging technologies and partner with the faculty and staff to continue to enable cutting edge technologies that support pedagogy and research. The University will implement solutions that are innovative, supportive, and integrative to progressing goals, trends, and expectations. The resources provided by the University will help build an environment to enhance, support, and encourage outreach in teaching and learning, regardless of physical location.

Notes for the teaching and learning computing environment:

• The objectives below need direction from the IT Governance Teaching & Learning groups. They should focus on the initiatives bulleted, select the ones they are most concerned with and provide insight into what they would like to see done in those areas.

Objective: Provide facilities and learning spaces technologies that enable and enhance the teaching and learning experience.

• Collaboration spaces
• Virtual and Physical Labs
• Flexible and configurable teaching environments
• Develop standard teaching environments to support the desktop needs of faculty, instructors, and teaching assistants.
• Provide greater support for digital media creation, distribution and captioning

Objective: Provide technologies that enable students and faculty to access the services and information they need when, where, and how they are needed.

• Identity and access management
• Mobile technologies
• Accessibility compliance - Values or operating principles need to include the ‘no boundaries’ type of thing; save money, make accessible things, and make them usable… etc.
• Portal technologies

Objective: Provide technology services and support that enable and enhance the teaching and learning experience.

• Online and blended learning
• Support faculty for all toolbox solutions
• Learning Management Systems
• Streaming, webcasting, lecture capture, and other media (eBooks, 3D video, …)
• Instructional support
• Course Management Systems
• Copyright management
• Gaming and simulation
• Shared repository of learning objects
• Licensing management
• Application virtualization
• Accessibility and find-ability for digital content
• Support piloting of new learning technologies

Objective: Support users’ ability to access and utilize current, cost efficient technologies to support academic and student/faculty life endeavors.

• Desktop support / service desk / CRM
• One Card – iCard multi-functionality
• Training Opportunities

Objective: Provide technology tools to enable faculty development.

• Course Design
• Teaching academy
• Create a support model that clearly defines the roles of central and college instructional designers and develop a community to enhance their collective ability and continuing education

Objective:
**Information Security and Privacy**

Information in all its forms is our currency and the source of underlying value we provide to the University. There is a significant value associated with our intellectual assets and institutional data that require substantial measures to protect. Safeguarding university information, assets, and stakeholders allows the University to concentrate on mission activities and operations. These efforts include improving the overall security and privacy of information at the University, appropriately balancing risk with safeguards, and ensuring security and privacy measures are appropriately supported, funded and implemented within the University.

**Objective:** Provide security services and architecture that provide a robust and secure foundation for information technology resources.

- Intrusion detection and control
- Tiered availability – ability for integration
- Network, Application, Physical
- Disaster Recovery / BCP
- End User Support
- Emergency Services and Notifications
- E-discovery
- Security cameras
- Network access controls
- **Public Key Infrastructure (PKI)** - PKI is a set of procedures, policies, hardware, and software that is used to manage digital certificates. This infrastructure is needed to support encryption of objects such as files, email, and network traffic, and is needed to support true digital signatures. It’s also needed for certificate-based authentication, such as two-factor authentication (such as Smart Cards) and authentication between computers. Implementing a PKI will include a key escrow capability, in order to save private encryption keys. This is important for recovering encrypted objects in the case that private keys need to be recovered (e.g. are lost or destroyed.) Implementing a PKI has been an enterprise need for many years, which has not been done because of the significant expense and need for cooperation and collaboration between all parts of the University. Since it is a pre-requisite for most encryption and digital signature projects and is such a significant undertaking, it should be considered as a separate project from encryption.
- **Encryption** - There are several aspects to encryption – many of which may be satisfied by the same solution:
  - **File encryption:** This may differ from “disk encryption” because the encryption would not be transparent to the operating system, and could be applied to objects on network drives. Disk encryption provides protection for an entire drive if a computer falls into the wrong hands, however does not protect files from processes running in the OS that manage the encryption.
  - **Email encryption:** The ability to encrypt individual messages is needed to send sensitive data. Currently this functionality is provided by PEAR, which was meant as a stopgap solution when implemented.
  - **Digital Signatures:** True digital signatures are used for message integrity (proof that a signed message has not been altered) and non-repudiation (proof that the signature was actually done
by a particular person or agent). These are needed for documents and email messages, and require careful implementation to establish the appropriate assurance level (or probability that the signature is valid) for an application. For example, a certificate used for a digital signature that is issued with scant proof of the identity of the person that it’s issued to cannot be used for transactions that require a high level of assurance (such as a financial transaction involving large sums of money.)

**Network encryption:** Currently there is no encryption on networks except for those protected by VPN tunnels, or connections between processes that provide their own encryption (such as SSL web connections or database connections). Encryption of traffic between computers would eliminate the risk of sensitive data being intercepted and satisfy policy requirements for sensitive data. (This seems to dovetail with the University-wide network one above?)

**Encryption of Data-at-rest:** This refers to the encryption of data on servers (such as database servers) or in backups that could be utilized by parties with access to the media or raw files. Implementing this is a requirement stemming from an audit finding. This might be feasible to implement without the use of a PKI, however a PKI would put this encryption on a much more solid technical footing.

- **Multi-Factor Authentication** - Implement multi-factor authentication to require users to use additional credentials (besides ID and password) when accessing secure and/or sensitive data. The additional credentials may include digital or physical assets such as digital certificates or biometrics. Multi-factor authentication is needed to secure sensitive operations (such as administrator access) and key storage is needed for PKI applications (see PKI project description.) We need to evaluate the iCard form factor to determine if it’s sufficient to meet FIPS 201 identity card requirements as well as authentication and key storage. If it’s not sufficient, then an updated smart card infrastructure should be selected and implemented.

**Objective:** Protect sensitive information of all university stakeholders.

- Security Training and Education
- Audit requirements
- General privacy compliance requirements - HIPAA, FERPA, ...

**Objective:** Develop and implement University and Campus level security policy and procedures.

- **UIC is developing campus wide security policy and procedures as governed by its Information Systems Security Policy Program** - The purpose of this policy is to protect strategic information assets of the University. The University of Illinois at Chicago has adopted this Policy as the parent Policy for an Information Systems Security Program (“Security Program”) within the Units. This Policy requires participation in the Security Program and assigns responsibilities for the oversight and day-to-day management of the Security Program. These fundamental responsibilities are essential to ensuring that the Security Program operates and provides timely and effective guidance to the Units’ computing community within the dynamic and rapidly changing field of information technology. In order for the guidance to be targeted, the Security Program is required to undergo well-planned periodic review and modification to fit the evolving needs of the University and its stakeholders. Policies within the parent program currently include:
  - Security Incident Response and Reporting Policy
  - Information Security Management Process

**Objective:** Significant risk areas are clearly identified and addressed with appropriate mitigation plans

- Risk assumption
- Risk avoidance
- Risk limitation
• Risk planning
• Risk transference
• Research and acknowledgement
• Security training and awareness through outreach

Objective: Verified conformance with applicable laws and regulations regarding information security and privacy.

• Best practices
• Standards
• Policies
• Internal audits
• Third-party audits
• Regular penetration testing
• Transparent sharing of summary of findings aimed providing a high-level, fair and balanced assessment of the overall University security posture.
• Transparent sharing of breach incidents and associated responses.
• Coordination with university legal to ensure compliance
• Coordination with university law enforcement to leverage available physical security resources

Objective:
Outreach and Public Service

Through public engagement and outreach activities, the University engages with the general public, donors, alumni, corporations, and future students. The University must provide a full range of IT services needed by faculty, staff and students to conduct seamless outreach programs using the latest IT tools and techniques that are regularly updated to reflect changing conditions and options.

The public must be able to quickly and easily access university resources utilizing common tools already at their disposal. University of Illinois IT empowers faculty and staff to leverage a full range of popular internet technologies that provides useful public access to the breadth and complexity of our knowledge community with the convenience of our private sector competitors. Planning and efforts in online publishing should place our knowledge assets not only on University of Illinois sites but also in social media outlets to allow for the serendipitous discovery of the University. Raising the profile of the University and its public service and outreach missions will help lead new audiences to the University of Illinois.

Notes for the outreach and public service environment:

- What does outreach mean to a unit? To a faculty member? To extension? Is outreach a range from an individual effort to the largest University extension program?
- How do we capture the full life cycle for an individual’s relationship to the University?
- Where do the tools for communication, engagement, and collaboration meet the various stages of outreach?
- Vision notes: IT creates a trusted clearinghouse of integrated and University-branded tools that includes or closely parallels the popular offerings by Google, Flickr, YouTube, Facebook, Doodle and similar tools. University members can access these technologies at any time to create professional-looking web sites, wikis, event calendars, mailing lists, and other virtual spaces for collaboration and communication with the general public, donors, alumni, corporations and future students. The clearinghouse provides information about how to avoid common pitfalls, such as data loss, security risks, and inaccessible content. Faculty and staff can easily set up and manage these tools themselves, so that they can focus on establishing effective partnerships instead of jumping over technical or organizational hurdles. Faculty and staff can review and rate these tools to help each other find innovative uses and increase trust in the tools. They can also recommend new tools be vetted and approved for the clearinghouse to ensure we stay current with new trends.
- Vision notes: Furthermore, the tools are accessible by design so that public service and outreach are inclusive of people with a variety of accommodation needs and technology platforms. In addition, the tools meet our institution’s policy and security requirements, such as user authentication, for a seamless blending of participation by internal and external users. Beyond the tools the University provides, the general public will find what we offer through broad topical searches within their area of interest without the need to go to the University directly. The tools also support the integration of multimedia, which can be used to deliver new media that educates, engages, excites and entertains our Illinois audience and future students.
- Vision notes: Simply put, tools + knowledge = ability to share knowledge and engage with our communities.

Objective: Facilitate the use of technology by University partners so they can connect and interact with the University community and resources.

- Infrastructure to support remote locations
- Videoconferencing (connecting) tools
- Streaming Services
- Guest wireless
**Objective:** Provide technology services to University organizations that are engaged in outreach activities to engage and inform communities, stakeholders, and citizens.

- Support the directions provided by the IT Governance committees related to Outreach & Public Service
- UC2B – Big Broadband initiative
- Public affairs, governmental relations
- Expert connections
- Public relations / marketing
- Public Broadcasting access from mobile devices

**Objective:**

-
Administration

Administrative IT systems are utilized in areas such as student services, finance, human resources, facilities, advancement, and research administration to support the mission activities of the enterprise. It is important that our administrative IT investments improve efficiency and effectiveness and are informed by faculty, staff, students and alumni.

The university will maintain a commitment to highly efficient systems by leveraging integrations at all levels. We will capitalize on successful unit-level administrative systems and bring them to campus or university support levels as necessary, allowing the unit to focus on their core mission. The university also needs to carefully evaluate new systems to ensure they integrate easily with existing systems to avoid the excess work needed to modify those existing systems.

Administrative IT is developed or maintained with standards based on international standards (HTML, CSS, ANSI SQL, etc.) so that the systems are cost effective and provide long term benefits such as reduced maintenance and interoperability with international and nation efforts and initiatives. These standard based systems will keep the University at the leading edge with support for the newest device platforms in an open integrative fashion.

Administrative IT systems promote well-informed decision making through availability of timely data that is easily accessible by decision makers. These systems provide incentives in their use through features such as ease of data entry, fast retrieval, and quick consumption of data (such as dashboards). Integrated systems and reduction of paper processing promote timely data that enable informed decision-making.

Notes for the administrative IT environment:

- Vision should be to make it as easy and seamless and possible to users. How do we deliver through user driven interfaces? How do we capture the ‘anytime, anyplace, anywhere’ mentality of our users?
- The university has the devices available and security in place which enables all constituents (faculty, staff, recruits, students, alumni, donors, vendors, etc.) to perform the activities they need to, whenever they want, from whatever location they choose.

Objective: Provide enterprise solutions and common good services for the University in instances where centrally provisioned and maintained services are most cost effective while providing excellent service to users.

- Interoperability standards / enterprise standards – create standards, publish, etc... - Describe initiative here.
- Business Intelligence/Dashboard - Develop and deploy tool Business Intelligence tools and products (Dashboards, KPI's, Scorecards and/or Reports) via a portal technology to simplify access to business data. Also employ various technologies to structure the data for easier access by the appropriate stakeholders.
- Workflow and document management - Provide a suite of tools and services available for managing both human and business process management (BPM) workflows. Human workflow is the automation of flow and approval from one person to another. Business Process Management (BPM) is the automation of business process, which will require the development of specialized applications or services.
- Web/Video conferencing/streaming - Describe initiative here.
- Project management - Describe initiative here including services/standards/process.
- Web publishing - Describe initiative here.
- LMS integration with Banner - Implement a solution or an interface to integrate Banner with various learning management systems. This integration is used to simplify the management of class registration and grades between the various systems.
- **Enterprise level licensing** - Implement a consolidated or centralized funding model to accommodate enterprise licensing agreements and provides enterprise class products to organizations that would not normally have the means to purchase the products themselves. The university purchases a number of individual or small bundles of licenses for software products. The purchases are needs based and are done at the unit level. Many times the cost of the individual licenses exceeds the cost of a single enterprise license that would allow expanded product availability throughout the entire university. For example, the university pays more for individual Toad (SQL Client Application) licenses from Quest than the cost of an enterprise license for an extended Quest suite of products. A consolidated or centralized funding model could accommodate enterprise licensing agreements and provide enterprise class products to organizations that would not normally have the means to purchase the products themselves.

- **Improve human resources employment processing application software (Hire Touch)** - Describe initiative here.

- **University wide system status page** - Develop a new application for managing communications regarding system status. The application provides the ability to post status notifications regarding planned and unplanned interruptions to services and systems. It also provides for "push" notification via RSS feeds and email. It records history of updates as well. The updated version of status should provide an improved user interface for IT pros and end users as well as support for CITES, AITS, and other campus units, and other campuses to post updates via a shared namespace.

- **Desktop Services** - Provide University wide infrastructure for virtual desktop and thin clients. Units have not refreshed in the last couple of years due to the economic downturn, and are now confronted with a massive refresh queue. This opens up an opportunity for a long-term plan to evaluate opportunities, leapfrog technologies, and adopt new technological solutions in our enterprise. Coming up with a comprehensive and cost-efficient solution would relieve IT resources from this commoditized service, and enable these highly skilled resources to focus efforts towards more valuable solutions.

- **Endpoint Management** - Implement a patch management solution (such as Bigfix and/or SCCM) to maintain traditional desktops. This should reduce the cost of deploying updates and improve security posture by reducing or eliminating vulnerabilities caused by software needing security updates.

- **QA Services** - Provide centralized Quality Assurance services for software development organizations. Departments could leverage enterprise class tools and experienced resources to provide independent Quality Assurance practices such as vulnerability scans, load and performance testing, usability testing, accessibility testing, and automated functional and regression testing.

- **One Portal** - Implement a University wide portal to simplify access to various applications (internal and external) and improve Banner usability. This portal will provide:
  - Organization of the most common links and applications used at the University
  - Personalization based on roles and affiliations
  - Customization abilities for end users
  - Decentralized control of content authoring and targeted announcements

- **RightFax Solution** - Expand deployment of this solution to expand its reach to University of Illinois business units wishing to move away from existing faxing machines and required telecommunications. This is the recommended approach on the UIUC campus given the current Unified Communications effort.

Other benefits include switching to a Fax Over IP (FOIP) solution and eliminating requirements for a physical fax device and required telephony service and moving to a more sustainable architecture. The FOIP architecture also allows us to move on to virtual hardware and away from physical server hardware. Keeping the existing solution up to date with vendor support policies. This solution is also more scalable and the architecture is flexible and redundant. This provides us the ability to have a development environment to test with. This was not cost effective in the past due to the expensive nature of the fax servers and the attached fax card.
- **Private and Public Cloud Services** - Recommend University wide collaborative tools which are available to departments to use for things such as web publishing, collaboration, form generation, database and server hosting, etc. These services can be either private or public cloud based and can be chosen based upon the needs and circumstances. Consolidating or centrally providing information regarding these offerings will help staff understand what options are available and when they may best be used.

- **Knowledge bases (UIC initiative +)** – Describe initiative here.

### Objective:
Provide excellent customer support to all users at the University in multiple forms and avenues to enable them to utilize information technology resources as easily as possible to accomplish their goals.

- **Measure relevant performance metrics for customer service**
  - Customer Satisfaction
  - Others
- **Contemporary support** – walk-in support; support utilizing currently available communication avenues
- **Customer Relationship Management**
  - Customer Communication
  - Self service
  - Websites
  - Surveys
  - Needs assessment
- **24/7 access** - Develop a model for what access to 24/7 support looks like for the University. Different models and support levels exist across the university.
- **Service Centers** – Explore multidimensional service centers. This is beyond IT service centers. This focuses on how IT can support University service organizations/systems.
- **Improve IT Training** - Provide improved training at the right levels utilizing the best methods.

### Objective:
Develop benchmark comparisons of enterprise IT services to peer institutions

### Objective:
Promote and support collaboration and community source initiatives to leverage tools we've already built and provide a more robust environment where systems and people can more easily work together and communicate.

- **Application Reuse and Promotion** - Reduce application redundancy and leverage the development work of others across the enterprise. Applications developed by edge units can be leveraged by other departments and colleges across the campus and university instead of being repeatedly redeveloped or purchased. A model needs to be developed which will address issues such as funding, technical support, application hosting, application governance, user support, etc.
- **Community Source Repository / Service Directory** - Create and deploy a University wide service to provide a web services registry as well as a common repository for applications, enterprise message objects, and community source development initiatives. The repository will provide a searchable location for IT staff to find existing API’s, services, and enterprise data objects that can be used by applications. It also provides a facility for staff to register and share their own services and applications as well as work on initiatives jointly.
- **Data Integration Services** - Implement a University wide data definition and integration standards.
- **Consolidated IT Service Catalog** - Deploy common processes for tracking, approving, and publishing University wide IT services. The goal is to simplify the discovery of existing IT services by business to fulfill the business needs.
- **Web Content Management Systems (WCMS)** - Provide a recommendation for WCM systems and
services to author and publish web content. There are various departments at the University that offer this type of service. These systems are documented at [http://web.uillinois.edu/cws/system_options](http://web.uillinois.edu/cws/system_options)

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<th>Objective</th>
<th>Improve business processes at all levels of the University to ensure that the front-end process is efficient.</th>
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<td>• Enhance business process improvement capabilities at the University.</td>
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<th>Objective</th>
<th>Administrative systems will be designed with easier contemporary standards for ease of use to minimize the training burden on the university.</th>
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<th>Objective</th>
<th>Eliminate unnecessarily redundant systems.</th>
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Infrastructure

The University requires a foundational infrastructure of reliable information technology resources on which other systems and services depend. These infrastructure services must maintain a superior level of performance and reliability in order to support the mission of the University while being cost-effective, scalable, and accommodating to changing needs and technologies.

The University will strive to provide a reliable world class high-performance network infrastructure to all campus buildings that allows for all users to access needed resources. The infrastructure should support the needs of both wired and wireless users for faculty, staff, students and guests.

Notes for the infrastructure environment:

- There are infrastructure services that stand-alone and some that are dependent on others; where does this idea fit into the vision?
- What does infrastructure entail? Network, email, calendaring, phone, help desks, general support, training, active directories, all end user support, directory services.
- What is the core infrastructure and what is required at that level? What is our goal? What things hide in the background that is priority?
- Our priority is to maintain connectivity and communication between all UI constituents.
- Thoughtful question is what makes our university more than a collection of buildings?
- Where do infrastructure priorities become metric driven? Reliability? Up-time? Outsourced?
- Needs to be some notion that we are simply enabling or facilitating or providing, but the notion that we are between them and the infrastructure is diminishing. Create the least pain. Many people just want access. Needs to be transparent.

Objective: Provide reliable, high performance network services.

- **University Wide Network** - Design and implement the seamless integration of university networks to improve efficiencies, improve the inter-campus communication, and reduce cost. This will involve a study to document differences in operation and service level between campuses and UA, propose engineering, design, implementation, and operations teams across the campuses, and discover architectural requirements for a unified University network. The ICCN engineering team will need to match operating levels on the intercampus networks to match the new requirements. Potential savings can be envisioned in economy of scale, in combining Internet and R&E network access among the campuses, supporting VOIP, in improving cross-campus communication, and in unifying security and auditing devices.
- **Physical infrastructure** - Create a more robust network by upgrading wiring in all buildings, expand redundancy to buildings and increase wireless access across the entire campus.
- **Wireless** – Seamless access (infrastructure, usability, and customer service, printing)
- Next generation
  - GIG.U (gig-u.org)
- Internet2
- Collaborate across campuses to create the same measurements and metrics

Informal Notes: What metrics need to be gathered to determine these initiatives? For instance, percentage of campus covered in wireless? What are others?

Suggested Metrics:

1. Overall Service and Cost Metrics
2. Service map coverage
Objective: Provide comprehensive Identity and Access Management architecture and services for the University to provide a cornerstone solution to manage the creation, maintenance, and use of digital identities.

- **Identity and Access Management Project** - The implementation phase of this project is starting in January of 2012. The goal of this project is to implement an IAM solution to address the University of Illinois need to manage Identity and Access issues. This project will be implemented in three phases that span over 2 to 4 years. Based on the project planning, these phases may overlap. More information can be found on the IAM Project Website. Components of the implementation will include:
  - Single sign-on
  - Provisioning
  - Authorizations
  - Affiliation
  - Business Intelligence
  - Authentication
  - Federation

Suggested Metrics:

1. Time to provision, authorize or decommission accounts
2. Password resets and lockouts
3. Service and Cost Metrics
4. Manual password resets
5. Number of services using IAM for authentication/authorization

Objective: Provide robust, accessible and cost efficient data center, storage, backup and business continuity/disaster recovery services including data security along with physical security.

- **Shared Data Center Services** - Provide Shared Data Center Services across all three campuses and include Chicago representation on both executive governance and operational committees. Currently, services are being offered at three Urbana locations and one Chicago location. Many units, including the CIC, have decided to move forward with this opportunity to decommission small closets or server rooms and move into larger data centers. The University of Illinois Hospital is looking at this option and plans to start a pilot project in 2012 that will provide the framework to move BCP operations to the Urbana location from Oakbrook, IL long-term.

The second phase is working together to create the same data center policies and procedures across campuses. Representation from all three campuses is needed to make this phase two successful. The Data Center Operational Committee is now represented by Urbana and Chicago membership with an empty seat for Springfield.

- **Storage and Backup Services** - Colleges and departments are looking for guidance related to storage and backup solutions that can be used to meet differing business requirements (i.e. Researchers need of sharing large data sets across the internet, consolidating file server data across one department). The Storage Task Force is working to gather the requirements in Urbana, which will lead to the recommended solutions. This effort needs to be completed at UIC and UIS.

  Box.net has been selected by Internet2 as an online storage collaboration tool and is being piloted by the University of Illinois the Hospital. However larger storage requirements imposed by applications and databases will need to be addressed in-house.

- **Highly secure high-risk data and physical security** – Describe initiative here.
• **Videoconferencing infrastructure** - Create a unified video/audio/web conferencing service.
• **File Server infrastructure** - for use as a secure file server and network home directory repository.

Suggested Metrics:
1. Number of end users consolidating to shared services platforms per month, quarter and year
2. Number of service desk calls per month
3. Backup restores per month, quarter, and year
4. Number of successful business continuity tests per year
5. Overall Service and Cost Metrics

**Objective:** Provide mobile strategy that meets the vision of the infrastructure and overall strategic plan.

• **Mobile Technology** - Develop standard techniques, architecture, and frameworks for mobile application development. Coordinating these efforts will help provide a more seamless suite of applications for students, faculty, and staff. It will also provide tools, guidelines, and frameworks to departments who wish to develop their own mobile applications.

Suggested Metrics:
1. User profiling
2. Application Profiling
3. Number of mobile users by country, state, city
4. Number of mobile users by carrier
5. Usage Statistics
6. Service desk calls
7. Number of applications supported by quarter/year
8. Overall Service and Cost Metrics

**Objective:** Provide Unified Communications (email/calendar/voice) for the University community.

• Complete implementation of the Unified Communications project at Urbana-Champaign.

**Objective:** Provide immediate and transparent access to services.

•

**Objective:**
### IT Human Resources

Information Technology Professionals at the University are our most valuable IT asset. These people provide frontline support to students, faculty and staff and are responsible for the day-to-day IT operations at the University. They are also responsible for fulfilling the strategic objectives and initiatives as outlined in this plan.

Information technology professionals are aware and committed to the mission, vision and goals of the University. To that end they proactively engage in networking in order to exchange ideas, methodologies and leverage the expertise of their colleagues from central, college and unit level IT groups. IT professionals throughout the University share common characteristics. The University will strive to recruit, retain and develop the best IT talent. IT professionals ultimately are valued University resources that transcend physical barriers, locations or affiliations.

As IT professionals are assigned to projects, they will ensure that as they work to benefit the university they also focus on serving the distinct mission of each of the three campuses.

#### Notes for IT Human Resources

- Information technology leaders from across the University will work together to leverage expertise, form partnerships, share ideas, and provide the services our users need.

#### Objective: Recruitment -

The University will recruit talented people from within the system, from other institutions of higher education as well as industry to create a diverse pool of professionals that can enact the missions, resolve challenges and leverage opportunities to provide IT services that meet and exceed the needs of faculty, students and staff.

- On boarding
  - Getting IT staff up to speed quickly (efficiency)
  - Connect them to initiatives, processes and groups at the University of Illinois and campus level
  - A consistent on-boarding process to ensure the experience is the same
- Diversity
- Unified recruiting approach

#### Objective: Retention -

The university is rich with opportunity and talent and will easily allow professionals to pursue opportunities within other units and departments which will ultimately improve the quality of the professionals as well as the departments and service.

- Fluidity - ability to easily transition between organizations
- Mobility - ability to promote and compensate based upon performance
- Internal-to-University wide searches (similar to internal-to-campus; to retain human capital within the system)
- Satisfaction
  - Compensation
  - Advancement
  - Empowerment
  - Recognition
  - HR efficiencies
    - Multiple time tracking systems
    - On boarding (Stanford On Boarding Process)

#### Objective: Development -

IT professionals constantly evaluate their skills, refining existing or developing new skills as necessary. They seek feedback from their colleagues and use it for continuous improvement. They incorporate these characteristics in providing IT services and leadership to their respective units and to the University. IT
Human Resources provides professional development opportunities to help IT professionals expand their technical skill-set as well as their leadership qualities so they can excel at assisting faculty, students, staff and each other. IT professionals will be empowered and supported by tools to promote professional growth and compliment their activities and responsibilities at the University.

- Leadership training (ITLP, ITLW (2-day workshop held in summers; run by ITLP graduates), EDUCAUSE Management Institute, EDUCAUSE New IT Managers Program, etc.)
- Innovative time
  - Permission to research and expand knowledge
- Staff Sharing and cross training
- Development
  - Skills enhancement
  - Inter-campus/unit sabbaticals
- Performance review
  - Analytics
  - Self & Peer review
- Mentoring
  - Access to coaching
- Connecting IT Professionals to the Academic Missions and helping them understand the needs of the clients that they IT services they provide or plan to provide are “in sync”
- Cross department/unit/campus SME collaboration

Objective: Collaboration - The university will provide an environment which facilitates the exchange of information and build environments where professionals can network, share tools, and work together on solutions.

- Encouraging IT Professionals to participate in local, system, regional, national and international networking opportunities
  - We can’t tell people what to do, but we can set the expectation. Requires circumstances that are unique – right person, right situation, etc. If we could put sometime of qualifier ‘where applicable’.
  - ITPF – IT Professionals Forum (old CCSP)
  - IT Caffeine Break
  - IT Alliance
  - Midwest EDUCAUSE, MS Tech, EDUCAUSE, SCUP etc.

Objective:
**Health Affairs**

University of Illinois Hospital and Health Sciences System provides high quality, cost-effective patient care to the people of the State of Illinois, performs world-class clinical research, and provides education in the health sciences. These endeavors require secure information technology to improve services in areas such as electronic medical records, research collaboration, mobile devices and content, decision support, and health information management. IT must make it easier for staff, faculty and affiliates to interact with the hospital’s data systems to improve health care, education and research.

IT must help build a 21st century Health Information Infrastructure that enables effective care for patients, helps clinicians achieve continual improvements in the quality of care, lowers healthcare costs and allows secure management and exchange of health information.

**Notes for Health Affairs:**
- Information security and regulatory compliance also require significant IT resources. Although security is presumed when dealing with Health Affairs initiatives, it should be stated.
- [http://hospital.uillinois.edu/About_UI_Health.html](http://hospital.uillinois.edu/About_UI_Health.html)

**Objective:** Provide information technology resources to empower and enable the missions of University of Illinois Hospital and Health Sciences System.

- Uptime and reliability
- Mobile
- Telehealth
- Security and privacy
- Electronic access to medical records across hospitals, researchers, etc.
- Research access
- Electronic medical records
- Meaningful use of Electronic Health Records
- Population Health Sciences
- Unified communications
- Research collaboration
- Context aware devices
- Research Data Warehouse
- CCTS
- Remote access to international health centers
- Health Information Management
- Storage
- Electronic Data Warehouse
- Bandwidth requirements
- Document hospital and campus network infrastructure
- Document business processes and information systems for College of Medicine
- Envision the future of tablet computing related to home health care
- Implement an intranet with the data and peer comparisons

**Objective:** Enhance ability to create data streams of information around quality indicators, for example quality parameters that are part of dashboard that affect patient care, cost of services and reimbursement of expenses.

- Complete Research Data Warehouse.
- Integrate data from federally qualified health centers (FQHC) in primary service area with University data.
**Objective:** Create a data service where the immediate knowledge of indicators can increase the quality of care for the patients

- 

**Objective:** Enable easy gathering of data from home health care environments

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**Objective:**

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Institutional Data and Information

There are a number of major classifications of data at the University including administrative data, research data, teaching and learning resources, creative works, and scholarly life. These data and information must be organized, formatted, and stored in a manner that makes them accessible where needed via the appropriate services or interfaces required to make them useful for different purposes. Also, analytical tools must be provided in support of decision-making.

Furthermore, standard tools and methods of data extraction shall be defined as an aid to provide units with consistent set of production data within their scopes of operation. This will improve consistency in the way data is used across colleges and departments across the university, and streamline their processes for accessing and presenting their institutional data.

Decision makers and other information consumers at all levels of the University will have timely access to consistent, reliable, information that is relevant for their operations, analysis, and management needs. The various central offices charged with providing information will work together to provide information consumers with a seamless set of products and services to meet their information needs.

Notes for enhancing institutional data and information:

- This item may have a lot of the same information as in the information security section; how do we differentiate the use of the data and information from the access to information?
- Should we start with a common vocabulary?
- How do we provide information, data, and analytics to individuals for their own decisions?

Objective: Provide business intelligence and performance management information to enable more informed and efficient decision-making.

- Operational data
- Expert systems
- Research databases
- Creative Works
- Data Standards and Capabilities
- Dashboards
- APIs and Integration
- Campus Strategic Planning
- Clarity – analytics
- Common storage
- Stewardship / Data Custodian
- Access to data providers / data catalog and distribution
- Unmatched (inconsistent) duplicative data
- Analytics
- Improve the ability to get regular, online updates to the dashboard measurements (Pres)

Informal Notes: How can we make this objective more specific? Or should we make it into multiples to better serve its purpose? Should include a data classification initiative. Include benchmarking and what are the things that would enable benchmarking? Needs to be focused on being used by people throughout UI more easily.

Objective: Extend the centrally provided infrastructure to enable information producers in other central offices, as well as in local units, to produce visual summaries of information and other interactive displays. Also, provide Business Intelligence tools that make data easier to access and use for decision makers and other “casual” information consumers who do not have the time or technical skills to write their own queries or reports.
• Provide an enterprise tool to support dashboards and data visualization
• Provide more interactive interfaces for reporting
• Extend the use of OLAP cubes to support slice-and-dice analysis

**Objective:** Foster collaboration between information producers within other central and local offices to reduce duplication of effort and improve consistency of information across providers and interfaces.

• Support the work of the UTMT / ITPC Business Intelligence and Performance Management subcommittee, which is tasked with increasing collaboration
• Build partnerships with information producers in other central offices, such as Institutional Research, Business and Finance, Admissions and Records, and Human Resources
• Partner with other central information producers (see above) to ensure that standard data sets are available wherever appropriate, reducing the need for local data experts to build and maintain their own data sets, as well as improving consistency across different information providers

**Objective:** Because many information needs will continue to be met locally, increase efforts to support local information producers by providing additional Business Intelligence tools, standard data sets, training, and support for Business Intelligence communities of experts. Provide access to institutional data through multiple standard interfaces for use in unit production processes.

• Identify local data experts and work with them to determine what kinds of tools and support they need, and help build a Business Intelligence community of experts
• Standardized basic administrative data sets for general administrative use at college and unit levels
• Database populated listservs for standard mass-emailing procedures
• Standardized distributed data model that integrates university production data read-only with unit-level unit-definable tables
• Provide training on use of distributed data model for normal administrative uses

**Objective:**
Collaboration and Communication Services

Students, faculty, and staff communicate in increasingly rich and sophisticated ways in order to collaborate with one another, to expand the reach and impact of our efforts, and to promote the University and its programs. As the pace of change grows and through a new kind of relationship with IT, the University will be able to leverage the interest and excitement of students, faculty and staff in making use of the latest technologies.

Notes for collaboration and communication services:

- This is highly informed by the outreach, teaching and learning, and operational optimization goals; how are they intertwined here?
- One-on-one collaboration is facilitated to make one person communicate with another person as easily as possible. This is a fundamental change, making these interactions simplistic and to emulate face-to-face engagements.
- Constituents are utilizing mobile devices, learning management systems, blogs, wikis, social networks, instant messaging, document sharing, web conferencing, and other means to do collaboration and communicate with each other. How do we as service providers support that?
- UI must support an ever changing and ever evolving set of communication technologies.
- People have expectations from their private lives – how do we better understand that we cannot support them all, and we cannot ignore them all?
- Individuals will look to us for policy and privacy matters and what the appropriate use of these things is in our UI lives. Where do training, guidance, and policy development fit?
- Where do these things coincide to meet the needs of inter-disciplinary research and teaching?

Objective: Offer scholarly support services to the academic community.

- Collaboration platforms
- Scholarly repository
- Self-publishing
- Research catalog
- Implement an expertise profiling and research networking service to make it easier to find experts and enable collaboration
- Implement a faculty profile tool/service.

Objective: Provide communication and collaboration methods to enhance our interaction with each other.

- Shared repositories
- Social media

Objective: Provide improved communication and information to the University community to enhance awareness and increase usage of IT Services.

- Mobile delivery
- Customer relationship management
- Usability
- Communication
- Service catalog
- Self service
- Marketing
- Contemporary support
- BYO support
- Training
- Better websites
  - Initiative based
  - Others
- Social media
- Surveys

**Objective: Implement a new comprehensive model for multimedia services at the University.**

- **Create a core service for multimedia at the University to include services focusing on:**
  - Architect and implement a roadmap for multimedia efficiencies and growth at the University of Illinois
  - Deploy and maintain a scalable system-wide media catalog that is available to faculty, staff, students and the general public at multimedia.illinois.edu
  - Create and maintain a service model for multimedia that supports the strategic plans of the University
  - Develop common documentation, training, and educational resources for multimedia tools and services
  - Discover new technologies and methodologies to support rich media
  - Integrate multimedia resources from external service providers, central IT, and units into a cohesive and scalable framework
  - Partner with stakeholders across disciplines and units
  - Engage and connect with external partners and vendors

**Objective: Improve the selection and implementation of new technologies with an ongoing, cyclical, approach that is fundamentally about good communication and building relationships.**

- Develop & Implement Approach: a) building relationships & listening; mutual understanding of needs & opportunities, b) selection & implementation as collaborators, c) communicate to improve awareness and full utilization of services.
- CRM

**Objective: Offer rich, real-time communications services.**

- 

**Objective: Offer effective online collaboration environments.**

- Collaboration Platform(s) for wide variety of purposes including research and learning.
- Integration with...
  - Scholarly repository (various, e.g., IDEALS, ArtSTOR, discipline-specific resources, etc.)
  - Faculty Information System (aka publications, research projects, etc.)
  - Digital Media Storage & Delivery Service (photos, video, etc. Akin to a YouTube/Flickr solution for the University)
  - Learning Objects Repository

**Objective: Able to implement/deploy communications (and other) solutions quickly.**

- Improved governance. (In process.)
- Improved relationships/communication. (Implement approach described in Objective 1.)
- Continue to improve still significant challenges associated with acquisition / deployment. Purchasing / legal. E.g., Broker v build. Focus on integration.
Objective: Offer a suite of integrated information, communications, and design services for developing robust online and print communications for the University, its constituent parts, and people.

- Web Sites - Web CMS(es) to meet various needs with significant Web Design templating and customization capability for ease of use and quick turnaround
- Information Integration “Service” to facilitate integration of University data/resources into communications deliverables:
  - Directory Services (auth/auth)
  - News/Features/Events, etc.
  - Digital Media
  - Social Media
  - Faculty/Scholar Information (publications, courses, projects, honors, in the media, etc.)
  - University data (e.g., Banner, EDW, FACTS)
- Email Communications Campaigns
- Print Profiles
**Financial Stewardship**

The University needs to realize the most value for its IT investment. Information technology is utilized to create efficiencies in business processes by automating operational functions. IT is also utilized to provide business intelligence to help us analyze performance and inform decision-making. An important aspect of utilizing IT is determining how we fund IT and understand how we spend our IT dollars.

<table>
<thead>
<tr>
<th>Notes for Financial Stewardship:</th>
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<tbody>
<tr>
<td>• Information technology is utilized in a number of ways to enable the University to operate most efficiently and effectively in meeting our university and campus strategic objectives as well as performing the business processes and operational activities that support those objectives.</td>
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<tr>
<td>• IT professionals work together with faculty, staff, and students to simplify processes and deploy and support technology solutions and tools that increase capabilities and reduce manual processes where possible.</td>
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<tr>
<td>• Where does this allow an assessment of value?</td>
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<tr>
<td>• Enhancing value – spending dollars to promote mission based activities – and operational efficiencies.</td>
</tr>
<tr>
<td>• IT must provide needed telecommunications and information technology solutions and services in a cost effective and transparent way that is essential to enable and add value to the business and mission of the University of Illinois. The IT community must be a recognized business partner among academic and administrative units in:</td>
</tr>
<tr>
<td>1. Robust, reliable, and efficient IT services</td>
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<tr>
<td>2. Business enabler to enhance the core functions</td>
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<tr>
<td>3. Increase efficiency for administrative processes</td>
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<td>4. Transparent and responsible cost</td>
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<td>5. Trustworthy partnership</td>
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<tr>
<th>Objective: Create a transparent, sustainable and responsible funding model that supports the University’s telecommunication and information technology needs, creates new and improved services, and fosters innovation.</th>
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<tbody>
<tr>
<td>• Prioritization</td>
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<td>• Funding models</td>
</tr>
<tr>
<td>o Refresh Budgets / Infrastructure Budgets / Maintenance, Operations</td>
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<tr>
<td>• Return on investment</td>
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<td>• IT portfolio management</td>
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<td>• Activity based costing - UIUC and UIC initiatives</td>
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<tr>
<td>• Ongoing assessment of service value and lifecycle</td>
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<tr>
<td>• Understanding IT spend at the department, college, campus, and university level</td>
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<tr>
<th>Objective: Utilize our IT in the most energy–efficient manner to minimize energy costs when possible. Leverage IT services to facilitate energy conservation in other operations.</th>
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<tbody>
<tr>
<td>• Cloud services</td>
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<td>• Paperless initiatives / workflow</td>
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<td>• End Point Management</td>
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<tr>
<td>• Lights out – massive environmental control reduction</td>
</tr>
<tr>
<td>• Data center consolidation</td>
</tr>
<tr>
<td>• Using technology to measure energy consumption and savings</td>
</tr>
<tr>
<td>• Video conferencing</td>
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<tr>
<td>• Printer, copier, toner consolidation</td>
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</tbody>
</table>
Informal Notes: Should we be setting out energy conservation strategies? Is the goal to get to a sustainable place and if so where is the strategy in these pieces and what is a sustainable place?

<table>
<thead>
<tr>
<th>Objective: Increase efficiency and optimize university administrative processes to reduce the university operational cost.</th>
</tr>
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</table>
| • Simplify HR processes  
• Administrative Review & Restructuring  
• Business process improvement shared service and other shared services  
• Leverage IT to minimize energy costs when possible  
• Consolidate redundant administrative services |

Informal Notes: Should this be more of a collaboration section? How do we encompass the goals that people listed above will make and state that we need to support the technologies to enable those goals?

<table>
<thead>
<tr>
<th>Objective: Collaborate with partners internal and external to the University to enhance our information technology capabilities at the University, campus and unit levels.</th>
</tr>
</thead>
</table>
| Current and potential initiative areas:  
• Internal Partners  
  o University and campus leadership  
  o Researchers  
  o Students  
• External Partners  
  o Government  
  o Peer institutions  
  o Community  
  o International  
  o Consortia  
  o Alumni  
  o Industry  
  o Vendors |

Informal Notes: Should this be more of a collaboration section? How do we encompass the goals that people listed above will make and state that we need to support the technologies to enable those goals?
Student Success

Ubiquitous information technology is an essential element in the lives of today’s students. The University must provide students with services, tools, and timely information without boundaries to engender success at the University and beyond. These resources must proactively fulfill students’ expectations.

The scenarios in the following paragraphs describe some of the potential functionality that is desirable as we move forward utilizing IT in different ways to facilitate student success. In a mobile world, the student’s relationship with the University is not bound by geography. The student relationship is bound by learning experiences as the student inquires about, attends and graduates from the institution.

Information Technology plays a key role in the mobile world of information and social networks. The student begins to gather information about the university through social networks, feeds and information portals provided by the university. The student is in control of the experience and has the ability to tailor as much or as little information sharing as they desire. Increasingly, their specific engagement is tailored to their communication styles.

Once a student attends the University, their experiences in the virtual world mirror traditional college experiences. Entrance exams and results provide advising notes that tie directly to course registration. Students register for a range of blended learning environments, suiting their learning style and allowing a customization of curriculum beyond basic instruction.

Courses are collaborative and interactive, encouraging dialogue in the classroom and out, enhancing retention and comprehension of the material. Instruction does not exist only the classroom but through a community using the social links of classmates and instructors from around the world, collaborative tools to complete assignments, and learning systems to track progress. As the student participates in coursework, analytics predict if the student will be successful in the class. If the student struggles, triggers notify the instructor and advisor while the student is simultaneously provided myriad resources to help.

The student also uses social and information networks to connect to campus organizations, athletics, student programming and tutoring to enhance the student’s experience interacting with the University. As a student, their personal devices work ubiquitously with little discernible configuration. The student uses mobile devices to find locations and people on campus and determine physical resource availability, tying their virtual information network to traditional campus resources. The student uses this information to make the most efficient use of their time on campus.

After graduation, the relationship with the university is interwoven with the student’s information network. Graduate mentors connect with the student to locate jobs and join professional organizations. The student continues to have a relationship with the university though the alumni network; a free network they naturally connect to through the social network as an extension of the university experience. This seamless transition is the basis for a lifetime connection to the University of Illinois.

Notes for enhancing student success:

- How do we further elaborate on success? What do the campuses want them to do – meet degree objectives, graduate, high performance, achieving learning outcomes, retention, employment, ongoing connection to the university?
- Need to add point about what success is and what is measured. Campus and faculty should define this and aid us in identifying how we can assist in meeting that expectation.
- Where does our relationship with all the other state institutions fit? Do we have a role to play with all the other institutions and lead in areas, for example, ease of transferring institutions?

Objective: Provide technologies that help improve student graduation rates from the institution.
• Admission, recruitment, and retention communication and workflow
• Early warning services
• Support student success improvement initiatives across the university.
• Provide improved data resources in order to facilitate the handling of transfer students.

Informal Notes: What are the current initiatives aiding students with technology? Laptop lending programs? There is some language in the UIS Strategic Plan that directly speaks to this objective. We’d like to not only track graduation rates, but giving rates, engagement rates, etc.

Objective:
•
It’s vital that IT investment choices be guided by stakeholders, support enterprise strategies, and ensure the most important items receive the highest priority. IT governance (ITG) promotes the intelligent use of resources, providing a shared, rational, and transparent framework for the selection and prioritization of IT investments. ITG processes exist at all university campuses and within university administration. These processes will continue to evolve and leverage one another in order to influence IT strategy and resource investment at the University.

Effective ITG processes will help foster a positive and trusted partnership with the institution’s stakeholders (teaching, research, outreach, and administrative functions) to collaborate on achieving the institution’s strategic plan through the use of IT resources. It will provide a process to coordinate with the institution’s stakeholders to prioritize efforts most likely to achieve the desired benefit and tactically deliver value through the effective and efficient allocation of resources towards those efforts. We must ensure IT solutions are considered as a component of a wider organization change that takes into consideration the existing and future operational processes and IT infrastructures. A core tenant of ITG is the transparency it can bring. IT must work with the institution’s stakeholders to develop clear performance goals and establish effective metrics to measure and report results. ITG can also provide a means to collaborate with the institution’s stakeholders to establish and implement policies and procedures that strike an appropriate balance between organizational performance goals while addressing regulatory compliance requirements.

Notes for IT Governance:
- Maturity is something discussed often. Where we want to be? How many steps ahead of where we are today?
- Is our goal to have people that are not part of the process be confident in the process? Need to make it clear that faculty-led governance exists, what they are, how individuals interact with them, and what they do. If individuals do not interact with them, will they have confidence that it is representing them?

Objective: Promote university-wide IT governance that is empowered, accountable, and transparent in order to better support the mission activities of the University.

- IT governance group development to include:
  - Roles of IT governance
  - Prioritization of initiatives
  - Faculty, student, staff involvement
  - Communication
  - Cross-campus coordination

Objective: Develop the university-wide strategic IT planning process.

- Implement and ongoing strategic IT planning process that includes:
  - Alignment and integration with other plans
  - Communication
  - Connection to university and campus leadership
  - Funding strategic IT initiatives
Executive Governance Committee

Executive Governance
Campus CIO, 2 Deans, reps from Academic & Student Senates, Library, Provost’s budget, VCSA, VCR, Chairs of 5 topical committees; ex officio: Chancellor, Provost, ECIO

Topical Committees
15 members each (at least half faculty) named by Council of Deans, Academic & Student Senates, campus administration and IT Council

IT Council
Members named by colleges and schools, Library, administrative units, CITES, AITS, Provost’s and Chancellor’s reporting units

For more information
Learn more about IT Governance committees and activities: http://www.cio.illinois.edu/itgov