

# Office of Information Technology

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Technology Plan 2005 (version 5/3/05)

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## **I. Mission Statement for Information Technologies**

The Office of Information Technology provides innovative, contemporary, and accessible technology in microcomputing, instructional media, networking, and telephone services enabling the students, faculty and staff of IU Northwest to effectively meet the goals of a student-centered learning community. To accomplish this mission, Information Technology Services works collaboratively with the campus community to provide technology leadership and support, which emphasizes empowerment of the individual.

**Our strategic technology planning will focus on investing in learning environments that help students of varied backgrounds and preparation succeed.**

To accomplish this mission, the Office of Information Technology will:

- leverage hardware, software, and web-based resources provided centrally
- maintain campus desktop technology current through life cycle funding
- provide appropriate training during day and evening hours
- inform the IUN family about current and emerging issues in technology
- and work collaboratively with the campus community to provide technology leadership and support.

### **Context**

IUN is committed to establishing and maintaining appropriate information technologies, including instructional technology, in order to serve students, faculty and staff needs. This commitment has several implications. As a regional campus, IUN is clearly an integral part of the Indiana University system, having its own catchments area as well as its own linkages to the wider system. This creates an important dimension of IT, the special linkages to the larger IU system. Increasingly, information technologies are viewed as a single telecommunications system that merges data, voice, and video capabilities.

The entire IU system is in the midst of a major transformation concerning the use of information technologies for learning, scholarship, discovery, creativity and service. IUN intends to provide facilities and support for an expanding role of information technologies to faculty, students, and staff who have significantly different needs and experience in the use of technology. This support includes not only technical support of hardware and software; but also what is equally important, training to serve the instructional and curricular needs of faculty and students; and to

provide an up-to-date cyber infrastructure to support discovery, creative research, and scholarship

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## **II. Management of Information Technologies**

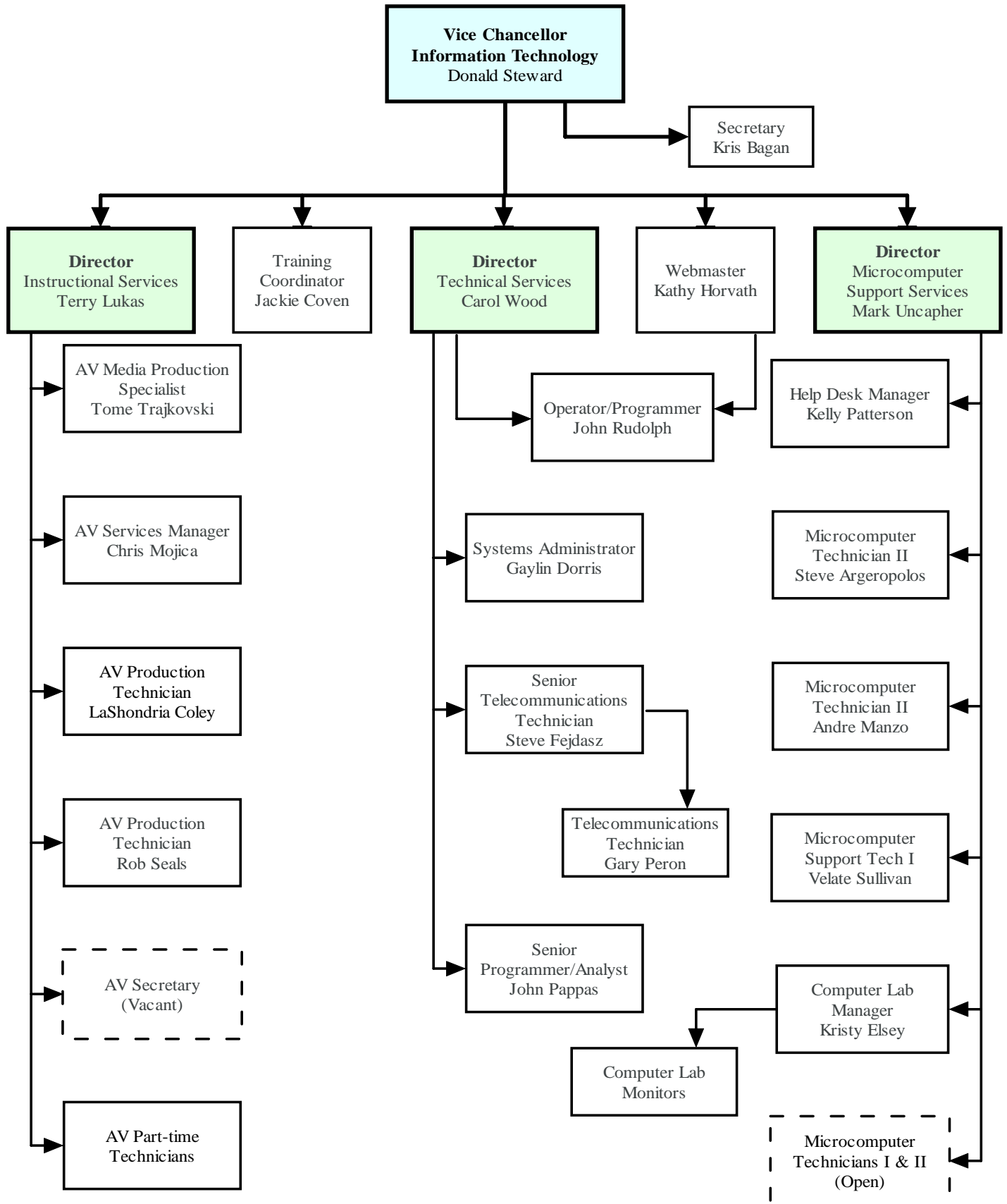
To use technology effectively in a learning environment an appropriate organizational structure must be created to manage information technology resources. This structure has been initiated in the creation of the Cabinet-level position of Vice Chancellor for Information Technology. This position reports directly to both the IUN Chancellor, Bruce Bergland and IU Vice President and CIO, Michael McRobbie. The VCIT is responsible for all aspects of information technology at IUN.

The Vice Chancellor for Information Technology is responsible for implementing and maintaining the Indiana University Information Technology Strategic Plan [Architecture for the 21st Century: An Information Technology Strategic Plan for Indiana University](#) on the IUN campus. This position represents IUN at meetings with Vice President and CIO, Michael McRobbie and works directly with centralized IT staff. The Vice Chancellor works with the Strategic Planning Team and the Technology Council to prioritize, plan, and implement specific Shared Vision outcomes as stated in the [Shared Vision](#) documents.

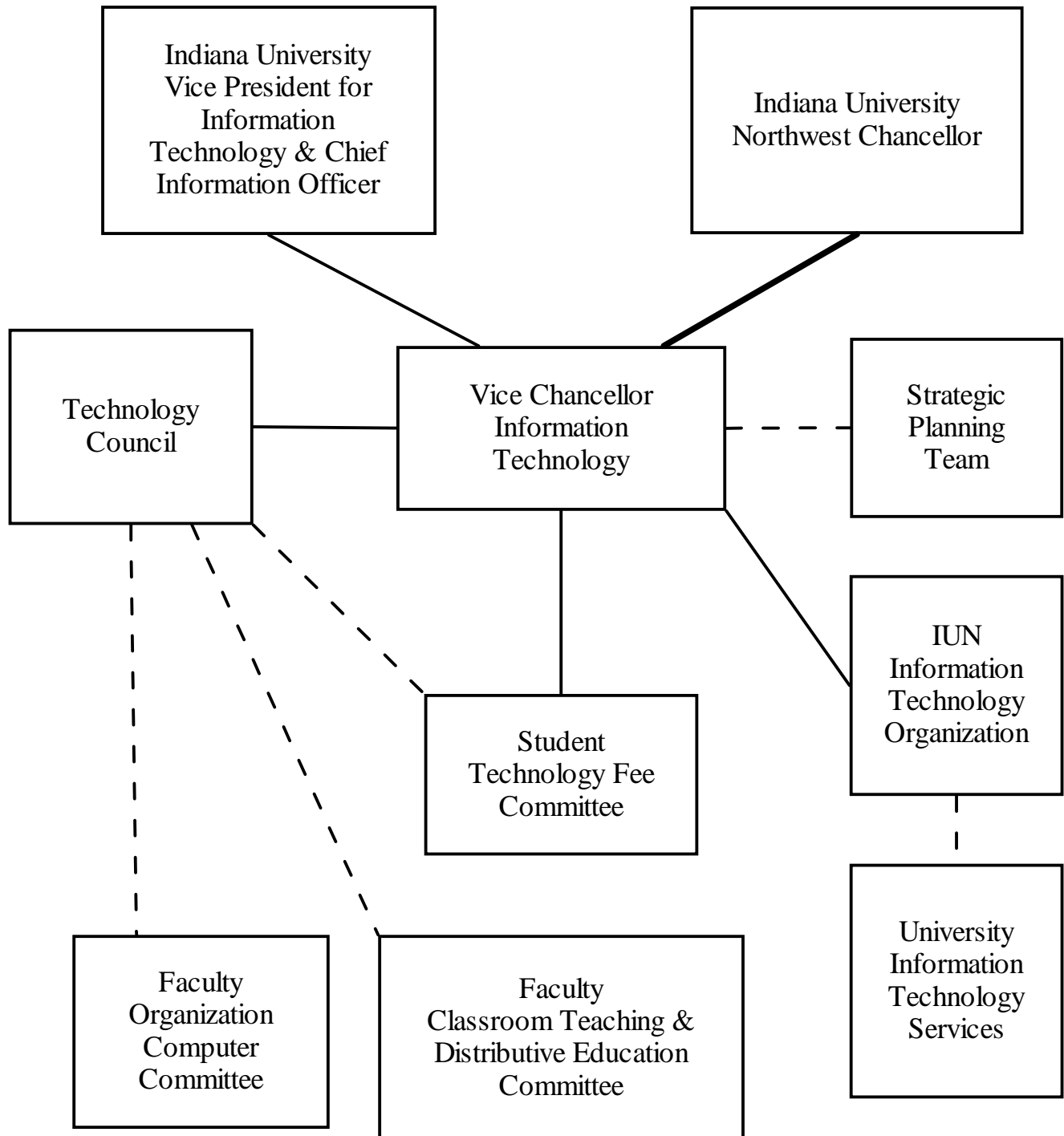
At IUN, The Information Technology Division consists of the following operating units: the Office of the Vice Chancellor; the Department of Microcomputer Support Services which provides desktop support and student computer support; the Department of Instructional Services which provides audio-visual services, distance learning, and faculty development; and the Department of Technical Services which provides network administration, server administration, programming services for specialized reports, and telecommunications. Other functions include microcomputer applications instruction, and web management. This structure must be complemented by a planning, staffing, and budgeting process for IT that can be integrated into the overall IUN planning and budgeting process.

The charts on following two pages show the Information Technology organization and a visual representation of the governance and constituent consultation necessary to coordinate information technology operations at IUN.

# Information Technology Organizational Chart



# Indiana University Northwest Governance and Constituent Consultation



## **Technology Council**

The [Technology Council](#) is a representative body appointed by the Chancellor for a staggered two-year term. The Technology Council is charged with developing a process and a plan that:

- Supports the strategic direction of the campus.
- Allows achievement of annual operating needs.
- Includes the capacity to react to unforeseen opportunities for improvement.
- Ensures information technology that is consistent with the Shared Vision and Mission of IUN.
- Establishes plans for campus expansion and reconfiguration in collaboration and cooperative ways with the neighboring community.

To achieve this charge the Technology Council shall perform the following:

- **Planning:** The Council will propose, with the assistance of the Vice Chancellor for Information Technology, a Strategic Information Technology Plan and annual Information Technology Implementation Plan. These plans will be presented to the Chancellor's Cabinet for approval.
- **Policy:** The Council will propose general policies for acquisition and use of technology and information systems on the IUN campus.
- **Procedures:** The Council will propose, with the assistance of the Vice Chancellor for Information Technology, procedures for the use and distribution of Information Technology on the IUN campus.

## **The Technology Council ensures these Information Technology Planning Principles**

1. Recommendations promote the unique identity of IUN as
  - a. A campus of IU, and
  - b. An institution known for excellence in cultural discovery and learning and sustainable regional vitality.
2. Recommendations promote using Information Technology to support excellence in learning, scholarship, and student services.
3. Information Technology recommendations address the learning needs of IUN's diverse constituents for success.
4. Information Technology recommendations are consistent with the campus' "Student-Centered Principles."
5. Recommendations are in full compliance with existing federal and state laws.
6. Recommendations promote technological access to public information for the community we serve.
7. Technology recommendations promote sustainable vitality of the IUN community.

## **Technology Council Membership**

1. The Vice Chancellor for Information Technology. (chair)
2. The Dean or a faculty member from the College of Arts and Sciences, recommended by the Dean.
3. The Dean or a faculty member from the School of Business and Economics recommended by the Dean.
4. The Dean or a faculty member from the School of Nursing and Health Professions recommended by the Dean.
5. The Director or a faculty member from the Northwest Indiana Division of Medical Education recommended by the Director.
6. The Director or a faculty member from the Division of Public and Environmental Affairs and Political Science recommended by the Director.
7. The Dean or a faculty member from the School of Education recommended by the Dean.
8. The Director or a faculty member from the Division of Continuing Studies recommended by the Director.
9. The Director or a faculty member from the Division of Social Work recommended by the Director.
10. The Director of Library Services or a designee recommended by the Director.
11. The Chair of the Faculty Computer Committee.
12. The Chair of the Faculty Classroom Teaching and Distributive Education Committee.
13. The Registrar.
14. One individual recommended from the Student Services area, the recommendation being made by the Vice Chancellor for Student Services.
15. The Director of Human Resources or representative.
16. The Alumni Director.
17. The Assistant to the Development Director.
18. The Vice Chancellor for Fiscal and Administrative Affairs or fiscal representative.
19. A Director for one of the Centers of Excellence or a representative.
20. Two student members recommended by the Student Government President.
21. The Technologist from CETL.

### **Non-voting members**

22. The Director of Information Technology Technical Services.
23. The Director of Information Technology Instructional Services.
24. The Director of Information Technology Microcomputer Support Services.

## **Student Technology Fee Committee**

The Student Technology Fee Committee is comprised of five students and five faculty or academic staff (from the Technology Council) charged to advise and review issues pertaining to the proper use of technology fees collected from IUN students. The committee serves in an advisory capacity to the Vice Chancellor for Information Technology. In addition, the committee's mission, as approved by the Technology Council, is to solicit, review, and select proposals for one-time funding from unallocated Student Technology fees.

## **Faculty Organization Computer Committee**

[The Faculty Organization Computer Committee](#) shall review policy and practice with regard to funding, acquisition, and management of computers, computer-related equipment, and computer facilities, and make policy recommendations in these areas. The Chairperson on this committee shall be a member of the Technology Council to provide policy input concerning computers and concerning the Technology Plan of the campus.

This committee acts as a conduit between the faculty and information technology organization to advise on operating issues as they relate to the academic mission of the campus and to determine the software configuration (build) in microcomputer classrooms. Often policy issues are first discussed in this committee and then brought forward to the Technology Council for recommendation and approval by the Chancellor's Cabinet.

## **Faculty Classroom Teaching and Distributive Education Committee**

The Faculty Classroom Teaching and Distributive Education Committee shall provide a forum for the discussion of common and unique educational concerns in such areas and objectives as: Teaching methods and practices; test construction; evaluation; statistical data on teaching; the relationships between teaching, research, and service; and philosophies of education. It shall review policy and make recommendations relevant to classroom technology , distance education, and other technology services.

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## **III. Overview of Existing Information Technology Resources**

### **Student Technology Centers**

There are two Student Technology Centers (STC's) at IUN. Marram Hall 103 is the main STC with the manager's office located there. This STC has adjacent bathrooms, a secure entry, special equipment for our visually impaired students, graphics PCs with scanners, multiple high capacity HP monochrome laser printers, a color laser printer, and is open extended hours. The other STC is located in the Savannah Center room 227. The Marram Hall STC supports Macintosh and IBM compatible Personal Computers and both STC's have multiple high capacity HP laser printers. Funding for the STC's comes entirely from Student Technology Fees.

### **Computer Classrooms**

Microcomputer classrooms are located in Marram Hall, Raintree Hall, Hawthorn Hall, the Library, and at the off-campus Portage Commons site. Each computer classroom has an overhead large display video/data LCD projector, which displays the video signal from the teacher's station on a pull-down screen at the front of the room, and one or more networked HP Laser printers. Funding for all computer classrooms comes entirely from Student Technology Fees.

### **Multimedia Classroom Technologies**

There are a total of 50 classrooms on campus and 3 in Portage currently used for general instruction. Of these, 22 have been converted to use similar fixed multimedia equipment consisting of an instructor's console with a networked computer (Mac or PC), video copy stand and VCR/DVD player. This console is connected to an LCD data/video projector(s) and powered stereo speakers. Each room is secured with a keypad entry locking system. Three classrooms in Marram Hall have a small switcher and both Apple iMacs and Dell SX 270 PC's.

Raintree 102, our most advanced technology classroom has an AMX touch pad to control lights, curtains, sound, instructor access to a rack of equipment including Apple Macintosh computer, VCR, video disc, video copy stand and other equipment as needed.

### **Mobile Multimedia Presentation Systems**

Instructional Services has 17 mobile multimedia presentation systems available for use in the 50 classrooms on campus. There are 14 PC carts and 3 Apple Macintosh carts. The carts are customized before delivery. Speakers can be added as well as VCR/DVD players and/or video copy stands. There are 13 LCD data/video projectors available to be combined with the above carts as needed. We expect the demand for these mobile systems to decrease as we move toward a fixed multimedia concept.

### **Distributive Education by Video Teleconferencing**

Three rooms are equipped for academic video teleconferencing. Hawthorn Hall 338 is the smallest holding a maximum of eight people and is equipped with IP Polycom equipment including a video copy stand, VCR, fax machine, and scan converter for Mac or PC computers.

Hawthorn 318, with a seating capacity of 20, is our most sophisticated facility with three robotically controlled cameras and instructor controlled video copy stand, VCR and a networked Macintosh computer capable of running both Mac and PC operating systems (Virtual PC) and application programs. Advanced technologies including chromakey are available through video staff assistance in the adjacent control room. This DE room can connect via IP Polycom, fiber through Ameritech Advanced Video System (AAVS) as well as ISDN and other routes through IUPUI and IU Bloomington MCU's.

Hawthorn 105 has the largest capacity with 39 seats. It has two 54" monitors in the front of the room with instructor controlled networked computer, video copy stand and VCR. An adjacent control room allows our video staff to make connections via IP Polycom or AAVS and control cameras.

### **Research Computing**

AVIDD (Analysis and Visualization of Instrument-Driven Data) is a distributed computing facility with components at IU Bloomington, IUPUI, and IU Northwest designed to process data generated by large scientific instruments. AVIDD opens new doors for research at Indiana University because of its novel design, addressing the full life cycle of data analysis including intake, storage, analysis, and visualization. The implementation of AVIDD is aimed at a great



diversity of sciences, including the life sciences, geophysics, atmospheric sciences, physics, and chemistry. There are few, if any, similar efforts in existence today.

There are three aspects of the AVIDD facility that are particularly forward-looking in meeting the coming needs of scientists:

- Real-time data analysis. AVIDD provides facilities for analysis of nonscheduled, real-time data streams while also maintaining high overall usage levels of the computational systems.
- Managing very large data sets. With a total of 10 TB (terabyte) of spinning disk, and close integration with IU's massive data storage system, scientists will easily be able to manage and analyze multi-TB data sets using the AVIDD facility.
- Low-cost, distributed visualization environments. IU has developed three relatively low-cost 3D visualization environments, permitting the installation of immersive 3D visualization devices in several labs, shared research areas, and advanced classrooms.

Further details on the AVIDD facility can be found on the [AVIDD](#) web site.

### **Administrative Computing**

IUN uses computers as an integral element of all administrative activities, including in the Office of Academic Affairs, The Office of Administration and Finance, and the Office of Information Technology. In Academic Affairs, computers are essential to the scheduling of instructional facilities and A/V equipment, to maintain student records including admissions information, grades, student fees and tuition, and placement data. In Administration and Finance, computers facilitate maintaining financial records, human resources records, physical plant records and work schedules. In Information Technology, computers are used to keep track of Help Desk service requests, maintain web pages, maintain an inventory of personal computers and printers, and provide microcomputer applications training.

The IU system has recently converted older mainframe-based administrative systems to a series of modules from PeopleSoft and is implementing community (open) software in stages that will take a number of years to complete.

### **Academic Affairs Support of Scholarship Through Technology**

[The Center for Excellence in Teaching and Learning](#) was established at IUN to encourage and support teacher scholarship through collaboration among the Office of Academic Affairs, the Faculty Organization's Faculty Development Committee and FACET members. The Center for Excellence in Teaching and Learning, CETL, began formal operations in the Spring of 2002. The Center is under Academic Affairs and is housed in the Library Conference Center. The Director of the Center reports to the Associate Vice Chancellor of Academic Affairs. CETL has established a Board of Advisors and a Steering Committee to provide faculty input on setting program priorities. The center has a technologist funded by the Indiana University Strategic Technology Plan.

#### **IV. Campus Strategic Priorities for Information Technology**

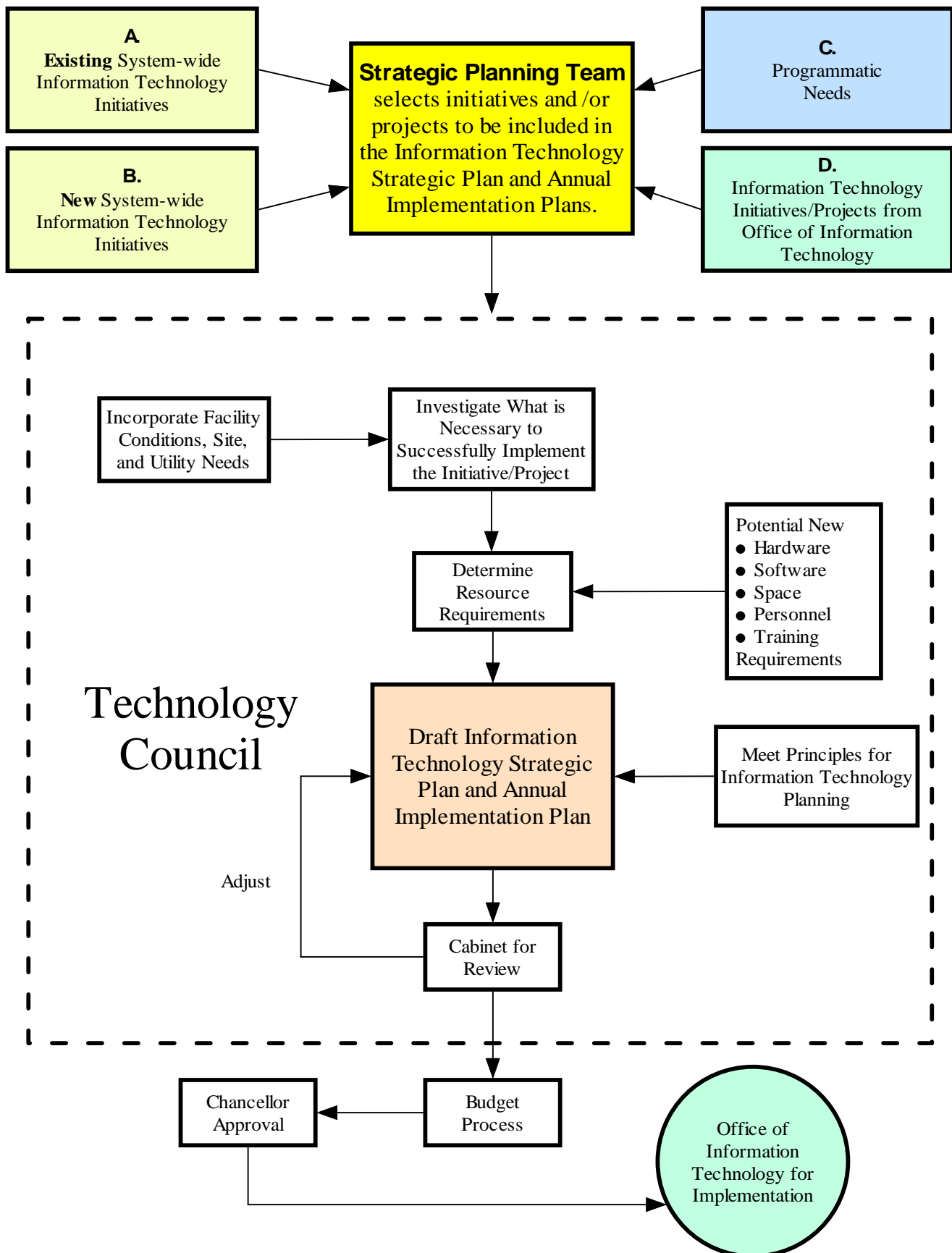
**For this 2005 planning cycle, Information Technology planning will focus on two areas:**

- **Responding to system-wide initiatives.**
- **Developing a methodology to integrate future Information Technology planning into the overall Strategic Planning process.**

**The proposed integrated planning process chart is shown on the next page with elements of inputs A through D detailed after the chart.**

# Information Technology Strategic Planning Process

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## **IU-wide Information Technology initiatives (A & B).**

### **A) Continuing responsibilities from the Existing Indiana University Information Technology Strategic Plan. Sections from the plan directly relevant with actions suggested on the IUN campus are:**

**ACTION 1:** The University should build life-cycle replacement funding into its planning at every level of investment in information technology (including personal, departmental, and central systems, and network hardware and software); and UITs should develop a life-cycle replacement model to use where needed in conjunction with its investments in information technology. Implementation should begin immediately, with full funding of life-cycle replacement phased in over a fixed number of years.

- *Propose a periodic review of life-cycle funding for microcomputers, departmental laser printers, campus data servers and associated software to ensure adequate resources are set aside.*
- *Propose additional sustainable life-cycle funding mechanisms for capital investments in other areas of technology at IUN.*

**ACTION 2:** The University should budget a standard amount per year, per FTE to support life-cycle replacement of faculty and staff desktop computers, and to cover the cost of providing local support to that desktop.

- *UITs is moving to an activity based budgeting model across all the campuses. IUN needs to develop a response as an alternative to Activities Based Costing methodology. Retain current incremental budgeting, convert to zero based budgeting or accept activity based costing.*
- *Propose development of a base budgeted amount per year, per FTE faculty and staff including adjunct and other part-time employees to support life-cycle replacement of faculty and staff desktop computers, and to cover the cost of providing local support to that desktop.*

**ACTION 3:** The University's stock of computers should be systematically modernized so that they are all capable of supporting current releases of widely-used software, Web access, and other basic tasks of computation and communication.

- *IUN will continue to utilize a system-wide replacement schedule as agreed to in 1999 as the basis for timing equipment replacements.*

**ACTION 4:** The University should review the market compensation levels for qualified IT professionals at each campus and in their surrounding communities, and seek to make compensation competitive with employment alternatives, within the context of overall University salary goals.

**ACTION 5:** The University should provide students, faculty and staff with reliable access to computing, data storage, information, and network services, on the campuses and off.

ACTION 10: The University should continue to support the efforts to educate and certify IT professionals in needed functional areas of the profession. These programs should be expanded to reach a wider University audience, especially on the IUPUI and regional campuses.

ACTION 11: The Teaching and Learning Technology Lab and the Center for Teaching & Learning should be expanded, and new services developed where needed, to offer a standard level of teaching support services for all faculty at IUB, IUPUI, and the regional campuses.

- *This academic initiative belongs to CETL and is supported by an IT funded technology support person.*
- *Instructional Media and CETL should develop a joint strategy for improving faculty capacity.*

ACTION 21: Beginning immediately, all planning and renovation of classrooms and other teaching spaces should evaluate and incorporate information technology needs. The costs of information technology identified in prior planning efforts as well as future efforts, should be fully base funded to provide for acquiring and installing equipment, as well as for maintenance, repair, life-cycle replacement, and support.

- *Review the previously agreed life-cycle funding model for classrooms and propose adoption and funding of a sustainable model that provides for conversion of all classrooms to sustainable fixed multimedia presentation systems from roll-around multimedia carts.*

ACTION 36: IU should implement as soon as possible a new Student Information System in a way that integrates identified best practices in providing services to students and is adaptable to future changes. The UITS implementation plan contains these elements:

- *Student Information System*
- *Human Resources Management System*
- *Library Information Systems*
- *Fiscal and Procurement Systems (e-commerce)*
- *Departmental Information Systems (not at IUN)*

ACTION 39: UITS should develop a consolidated information delivery environment, leveraging technologies already in use and expanding on these with newer tools. And UITS should complete implementation of an enterprise-wide data warehouse environment, currently in progress, to support university data access and information about this data. The participation of information users and all units affected is essential.

- *IU Information Environment (IUIE)*

ACTION 47: The University as a whole and the campuses individually should establish base funding for the life-cycle replacement and ongoing development of telecommunications services and infrastructure.

- *Continue funding life-cycle replacement costs for network wiring.*

- *Develop a sustainable life-cycle funding model for wireless service on campus.*
- *Investigate fully funding a telephone system PBX (switch) replacement with like equipment or IP based telephone service.*

**ACTION 51:** Implementation should begin for a University-wide wireless network, initially through a trial with a School.

- *IUN VPN secured (encrypted) or secure wireless network*

**ACTION 54:** UITs, with the departments, schools and campuses, should develop a model for student technology support that provides:

- A basic level of support and technology infrastructure to all students;
- Advanced support, typically for advanced degree students in graduate and professional programs, that is discipline-specific and may be integrated with the teaching or research activities of a school or department; and
- Advanced support to undergraduate students, as needed, especially for students in disciplines that do not provide such specialized support.

**ACTION 66:** The University should develop clear and forceful policies to address the management and protection of information and the security of IT resources.

- *Enterprise Directory Services including Centralized Authentication Services (Identity Management)*
- *Information Technology Policy Office*
- *IUN will develop specific IT policies with assistance from the Technology Council*

## **B) New System-wide information technology initiatives.**

PeopleSoft Modules ongoing changes and improvements

- SIS (Student Information System)
- HRMS (Human Relations Management System)

IUIE 2(Indiana University Information Environment or Data Warehouse)

Sakai Community (open) Source initiatives

- OneStart
- OnCourse
- ePortfolio

Kuali (Indiana University Financial System)

Faculty laptop initiative

## **C) Programmatic needs**

- *( To be determined)*

## **D) Information Technology initiatives / projects from the Office of Information Technology**

### **Expansion of student computing access**

- *Library Information Commons*

### **Teaching and Learning Support**

- *Coordinate CETL and IT efforts in a partnership that clearly delineates responsibilities for various teaching and learning activities to avoid duplication of effort.*

### **• Communications and Outreach**

- *Continue to improve the on-line and print mediums to inform students, faculty and staff.*
- *Improve formal and informal training in targeted areas in support of system-wide initiatives such as Oncourse CL and ePortfolio.*