

Faculty Senate Meeting
Tuesday, January 27
3:30-5:30 p.m. – Adelbert Hall, Toepfer Room

AGENDA

- | | | |
|------|--|---------------|
| 3:30 | Approval of Minutes from the December 19, 2008 Faculty Senate meeting, <i>attachment</i> | G. Starkman |
| 3:35 | President's announcements | B. Snyder |
| 3:40 | Provost's announcements | B. Baeslack |
| 3:45 | Chair's announcements | G. Starkman |
| 3:50 | Report from the Executive Committee | C. Musil |
| 3:55 | Report from Secretary of the Corporation | J. Arden Ornt |
| 4:00 | Discussion and Vote on Conflict of Interest Policy | G. Starkman |
| 4:20 | Discussion about Proposed University Budget Priorities | G. Starkman |
| 4:40 | Discussion and Vote on Proposal to Restructure the UUF | K. Loparo |
| 5:00 | Overview on Network Upgrade | L. Gonick |
| 5:25 | New Business | G. Starkman |



Faculty Senate

Minutes of the Meeting of January 27, 2009
Toepfer Room, Adelbert Hall

Members present

Keith Armitage
Bud Baeslack
Cynthia Beall
Nabil Bissada
Daniela Calvetti
Joseph Carter
Susan Case
Mark De Guire
William Deal
Dave Diles
Molly Fuller
Steven Garverick
James Harris
Christine Hudak
Elizabeth Kaufman
Kenneth Ledford
Alan Levine
Kenneth Loparo
Sana Loue
Leonard Lynn

Kalle Lyyntinen
Charles Malemud
David Matthiesen
Roland Moskowitz
Carol Musil
Ray Muzic
Ronald Occhionero
Joseph Prah
Roy Ritzmann
Cassandra Robertson
Alan Rocke
Benjamin Schechter
Barbara Snyder
Glenn Starkman
Elizabeth Tracy
Susan Tullai-McGuinness
Michelle Walsh
Rhonda Williams
Elizabeth Woyczynski
Jeff Zabinski

Members Absent

Kathryn Adams
Jeffrey Alexander
Robert Bonomo
Christine Cano
Martha Cathcart
Sami Chogele
Robin Dubin
Robert Greene
Peter Haas
Susan Hinze
Cheryl Killion
Wilbur Leatherberry

Jacqueline Lipton
Frank Merat
Kathryn Mercer
Shirley Moore
Diana Morris
G. Regina Nixon
Faisal Quereshy
Jonathan Sadowsky
Scott Shane
Kathleen Wells
Terry Wolpaw

Others Present

Jeanine Arden Ornt
Christine Ash
Randall Deike
Jerry Goldberg
Joanne Eustis
Donald Feke
Cleve Gilmore
Lev Gonick
Lara Kalafatis

Virginia Leitch
Marilyn Mobley
Dean Patterson
Ginger Saha
Chris Sheridan
John Sideras
Lynn Singer
Jeff Wolcowitz

Call to Order

Professor Glenn Starkman, chair of the faculty senate, called the meeting to order at 3:30 p.m.

Approval of minutes

Upon motion, duly seconded, the minutes of the Faculty Senate meeting of December 19, 2008 were approved as submitted.

Report from the Executive Committee

Prof. Carol Musil, chair elect, reported on the January 14 meeting of the Executive Committee. The faculty senate's proposed university budget priorities were reviewed and discussed. The Executive Committee discussed the proposal to restructure the UUF under the umbrella of the Faculty Senate; it was approved for final review by the Faculty Senate. After some discussion, and some minor revisions, the Executive Committee approved the draft of the Conflict of Interest Policy for final review by the Faculty Senate.

Discussion and Vote on Conflict of Interest Policy

Prof. Glenn Starkman introduced draft 28 of the proposed Conflict of Interest policy. After some discussion and minor revisions, the Faculty Senate recommended approval of the Conflict of Interest policy by the Board of Trustees. The final copy, draft 29 of the Conflict of Interest policy, has been posted on the Faculty Senate website.

Discussion about Proposed University Budget Priorities

Prof. Glenn Starkman introduced the faculty senate's proposed university budget priorities. An email vote to rank the priorities was solicited of all members of the faculty senate, and the top priorities were 1) increased merit-based undergraduate scholarships, 2) more technology-enhanced classrooms, and 3) expansion of health insurance coverage for students. Provost Bud Baeslack commented that these priorities will be considered in the upcoming meeting about the strategic planning process. *(The rankings will be attached to the approved minutes, posted on the faculty senate website.)*

Discussion and Vote on Proposal to Restructure the UUF

Prof. Ken Loparo introduced the proposal of the faculty senate *ad hoc* committee to restructure the UUF under the umbrella of the Faculty Senate. After some discussion, the proposal was approved by the Faculty Senate.

Prof. Glenn Starkman indicated that the Faculty Senate By-laws Committee will review the required changes to the Faculty Handbook, and they will present those changes to the Executive Committee and

the Faculty Senate in March. *(The proposal will be attached to the approved minutes, posted on the faculty senate website.)*

Overview on Network Upgrades

Lev Gonick, vice-president for information technology services, gave a presentation about network upgrades. *(The presentation will be attached to the approved minutes, posted on the faculty senate website.)*

Adjournment

Upon motion, duly seconded, Prof. Glenn Starkman, chair, adjourned the meeting at 5:25 p.m.



CASE WESTERN RESERVE UNIVERSITY
POLICIES ON INDIVIDUAL CONFLICTS OF INTEREST AND
INSTITUTIONAL CONFLICTS OF INTEREST

Introduction

This document establishes policies on individual conflicts of interest and institutional conflicts of interest.

Research, scholarship, and other creative endeavors have enormous potential to benefit humankind, and the University strongly supports efforts to bring discoveries to society. The purpose of these policies is to protect the University, its faculty, non-faculty employees, students, and trainees, and human subjects and animals in research, and to comply with applicable federal laws. The policies seek to accomplish this by striking the proper balance between, on the one hand, the goal of preserving academic freedom and encouraging outside scholarly and entrepreneurial activities by members of the University that enhance the prestige and reputation of the University and benefit society, and, on the other hand, the need to preserve the integrity of the University and its members and to fulfill the University's responsibilities to the public. In striking this balance, the interests of the public, the integrity of the University and its individual members, and the safety of research subjects always must be given priority.

These policies apply generally to the members of the Board of Trustees, all University officers, senior officials, faculty (whether or not engaged in research or other scholarly or creative endeavors), volunteer faculty at the School of Medicine engaged in sponsored research, post-doctoral fellows and scholars, non-faculty employees, students, and trainees. The specific policies cover specific types of individuals.

The University Conflict of Interest Committee.

The members of the Conflict of Interest Committee, including the leadership of the committee, are appointed by the President and include faculty, non-faculty employees, and administrators. The Conflict of Interest Committee includes at least one member of the public who serves as a regular member of the Conflict of Interest Committee, and a second member of the public who serves as an alternate member of the Conflict of Interest Committee. The members of the public must not have any affiliation with the University (including as alumni, faculty, clinical faculty, adjunct faculty, or emeritus

faculty) or with its affiliated hospitals (other than as patients). To the maximum extent possible, the members of the public must be independent of the line of authority for institutional oversight of research. A majority of the members of the Conflict of Interest Committee are members of the faculty as defined in Article I, sections (A) and (B) of the University Faculty Handbook, and one of these faculty members is appointed by the Executive Committee of the Faculty Senate. Membership also includes representatives from hospitals affiliated with the University. These members only participate in the resolution of conflicts of interest involving research.

Members of the Conflict of Interest Committee must recuse themselves from consideration of their own conflicts of interest, or institutional conflicts of interest that relate to their own conflicts of interest.

I. Individual Conflict of Interest Policy.

A. Who is covered by this policy?

The conflict of interest policy applies to the members of the Board of Trustees; all University officers; senior (“cabinet-level”) officials of the University (comprising the President, Provost, General Counsel, Senior Vice President for Administration, Chief Financial Officer, Vice President for Medical Affairs, the Chief of Staff, the vice presidents for Development, University Relations, and Diversity, Inclusion and Equal Opportunity, and any other individual that the President designates); all University faculty except volunteer faculty in the School of Medicine (unless engaged in sponsored research) and except special faculty members who are not paid by the University, unless engaged in sponsored research; emeritus faculty who have an ongoing relationship with the University or who are engaged in sponsored research; post-doctoral fellows, all employees; students; and trainees. “University faculty” are those individuals defined as University faculty in the Faculty Handbook.

This policy applies to these individuals regardless of where they conduct activities covered by the policy.

B. What is an individual conflict of interest?

An individual conflict of interest exists when an individual covered by this policy has a financial interest that might adversely affect or appear to a reasonable person to adversely affect the individual’s judgment in carrying out University responsibilities, or that might adversely affect or appear to a reasonable person to adversely affect the University’s responsibility to the public, the safety of research subjects, or the integrity of research.

C. Reporting.

The reporting requirements under this policy are broad, in order to provide adequate protection for individuals covered by the policy, the University and affiliated institutions, and the public interest. It is important to recognize that a reporting requirement does not indicate that the activity in question is in any way objectionable; indeed, reporting is required in connection with many activities in which members of University are expected to engage, such as funded research, or that are otherwise praiseworthy, such as the receipt of honorary awards.

1. Who must report?

The following individuals must report under this policy: the members of the Board of Trustees; all University officers and senior officials, as defined in section I(A) of this policy; all University faculty (whether or not engaged in research), except volunteer faculty in the School of Medicine (unless engaged in sponsored research) and except special faculty members who are not paid by the University, unless engaged in sponsored research; emeritus faculty; and senior/key personnel and other individuals who contribute to the scientific development or execution of a research project in a substantive way, and any other employees at the request of their supervisor. Students and post-doctoral fellows and scholars do not have to report unless they contribute to the scientific development or execution of a research project in a substantive way.

2. What activities must be reported?

Individuals covered by this policy must report any financial interest (defined in the attached glossary) and the acceptance of any gifts, favors, or anything of value, by the individual or the individual's spouse, dependent children, domestic partner, or any other dependent person who is a member of the same household as the individual, that directly or indirectly might influence or appear to a reasonable person to influence the individual's responsibilities as a member of the University.

Individuals covered by this policy who engage in research must report any financial interest, no matter how small, that the individual or the individual's spouse, dependent children, domestic partner, or any other dependent person living in the same household as the individual, has in any entity that sponsors or supports the research or that holds a financial interest in the subject of the research, and also must report the acceptance of any gift, favor, or anything of value from an entity that sponsors the research or that holds a financial interest in the subject of the research.

Individuals covered by this policy also must report whenever a previously reported conflict of interest is eliminated.

Whenever an individual covered by this policy has any doubt about whether or not an activity must be reported, the individual should report the activity.

3. What activities are permitted without reporting?

Certain activities may be engaged in without reporting. Typically, these are activities not covered in section 2 above in which academics routinely engage and in which an individual's financial interests are not expected to influence the individual's judgment.

Examples of activities in which individuals may engage without reporting include:

Receiving royalties for published scholarly work and other writings.

Accepting reasonable meals and other customary business amenities (such as pads and pens) that are provided as part of a seminar, course, meeting, or other business-related gathering.

Income and travel expenses from service on advisory committees or as a reviewer for governmental and recognized inter-governmental or academic entities or professional societies.

Honoraria for reviewing scholarly manuscripts for publication by academic journals or presses.

Income from diversified mutual funds.

Honoraria and travel support for scholarly presentations to U.S. federal agencies (such as the National Science Foundation, National Institutes of Health, Department of Energy, Department of Defense, National Endowment for the Arts, and National Endowment for the Humanities).

Grants and contracts administered through the University.

Whenever an individual has any doubt about whether or not an activity must be reported, the individual should report the activity.

4. How is reporting to be made and to whom?

The University's reporting process is administered by the University's Conflict of Interest Office, except that reporting by members of the Board of Trustees, the President, the Provost, all senior officials of the University, as well as the Chair of the Conflict of Interest Committee, is administered by the Office of General Counsel, and except that the General Counsel reports to the President. Each year, individuals covered by this policy must report in writing any activities listed above. Reports called for by the Conflict of Interest Committee are submitted to that committee. Reports called for by the Office of General Counsel are submitted to that office. The reports received by the Conflict of Interest Committee are shared with the deans and department chairs of the reporting faculty.

Individuals covered by this policy who are not required to report to the Conflict of Interest Committee (other than those described in the preceding paragraph who must

report to the Office of General Counsel or the President) must report any financial interest that relates to their University responsibilities to their supervisors at their annual review. Supervisors who determine that an individual may have a conflict of interest must report this to the Conflict of Interest Office for further review.

Compliance with this policy does not relieve the individual from complying with IRB or IACUC reporting requirements.

5. When is reporting to be made?

Reporting must occur at least annually as instructed by the Office of General Counsel or the Conflict of Interest Office. Individuals also must report the Conflict of Interest Office or the Office of General Counsel, as appropriate, within 10 days after they become aware of a reportable interest or after a conflict of interest has been eliminated. Individuals who have no reportable interests must still submit an annual report to be in compliance with this policy.

Individuals who have been recruited to the University must report any conflicts of interest sufficiently in advance of their start date that the conflicts can be reviewed and resolved by the Conflict of Interest Committee prior to their start date.

Reporting also is required at the time a research proposal is submitted on the electronic University Review Form, and when a research proposal is submitted to relevant review bodies (such as the CWRU IRB, Cancer IRB, CWRU IACUC, and affiliated IRBs).

As per 42 CFR part 50, the University reports to the NIH a conflict of interest related to NIH research prior to the expenditure of grant funds, and within 60 days of identifying any new conflict of interest. The report to the NIH specifies whether the University will manage, reduce or eliminate the financial conflict of interest.

D. Review and approval.

1. What is the review process?

The Office of General Counsel conducts an initial review of all the reports it receives. The Conflict of Interest Office conducts an initial review of all reports it receives. If necessary, they obtain additional information from the individual covered by the policy and from other individuals who possess relevant information. The Office of the General Counsel or the Conflict of Interest Office, as appropriate, then identifies those activities that must be reviewed and approved by the Conflict of Interest Committee, and those activities that may proceed without review by the Conflict of Interest Committee. The Office of the General Counsel or the Conflict of Interest Office, as appropriate, notifies the Conflict of Interest Committee or the Board of Trustees of those activities that must be reviewed and approved.

2. What is the approval process?

In reviewing a reported activity, the Conflict of Interest Committee assumes that the activity cannot be undertaken without a suitable management plan. However, in some cases, the activity may be approvable without a management plan. In determining whether a management plan is required, the Conflict of Interest Committee considers the significance of the conflict of interest (such as the size of the individual's financial interest); whether or not the individual is uniquely qualified by virtue of expertise and experience to conduct the research project and the research could not be conducted as safely or effectively without that individual; and the degree of risk imposed on research subjects.

Following are some examples of conflicts of interest. In specific cases, individuals may be able to engage in some of these activities with a suitable management plan:

- a. Serving as an investigator on a research project involving human subjects that is either sponsored by a company or related to the company's products while that faculty member is receiving royalties, consulting fees, or has equity (or stock options or a future "inventor's share") in the same company.
- b. Ghostwriting or having the individual's name attached to a paper written by another individual consulting for or directly employed by industry, including papers featuring data that were simply presented to the individual (without the opportunity to analyze directly, perform calculations, review and/or question the data).
- c. A faculty member directing students to purchase books for a course from a bookstore in which he or she or his or her immediate family have a significant ownership interest.
- d. Managing the renovation of departmental offices and participating in the selection of an architectural firm in which his or her spouse is a partner.
- e. A faculty member acting as a thesis or dissertation advisor to a graduate student for a research project, suggested by the faculty member, that the faculty member expects will substantially enhance the value of a company in which the faculty member has a significant ownership interest.
- f. A professor requiring students currently enrolled in his or her class to participate in his or her graduate student's thesis research project as part of course requirements unless deemed pedagogically justified by the individual's department chair or dean.
- g. A professor requiring students currently enrolled in his or her class to participate in his or her or another professor's research project unless deemed pedagogically justified by the individual's department chair or dean.

- h. A faculty or non-faculty employee with a financial interest in an outside company serving as the direct academic or research supervisor of a university student/trainee who is employed by that company.
- i. A faculty member with a financial interest in an outside company serving as the sole thesis committee chair if the focus of the student's thesis is based on research sponsored by the company.
- j. Issuing a University subcontract for research to an outside entity in which the local principal investigator on the research project has a financial interest.
- k. Receiving research support for human subjects research from industry without a contract, or for more than the reasonable costs of conducting the contracted research.
- l. Accepting financial support directly from external sources, rather than through the university, for research conducted in a University laboratory or utilizing University resources.
- m. Accepting compensation from companies for attending or defraying the costs of an industry-sponsored continuing medical education event (including gifts, travel, or accommodations) if the individual is not speaking or presenting.
- n. Presenting talks or serving on speakers' bureaus that advertise, market or advance industry products, devices or other technologies, including the marketing of off-label drugs.
- o. Receiving payments conditioned upon a particular research result or tied to successful research outcomes.
- p. While serving on a board of directors, participating in human subjects research on a technology owned by or obligated to the business, or receiving sponsored research from the business.
- q. Possessing a financial interest that competes with the services provided by the University.
- r. Taking administrative action within the University that is beneficial to a business in which an individual has a financial interest.
- s. Accepting personal gifts from industry, however small, including for listening to a sales talk by an industry representative, or for prescribing or changing a patient's prescription.
- t. Making referrals to a business in which an individual has a financial interest.

In the case of an individual who is newly hired at the University, the Conflict of Interest Committee may permit a prohibited conflict of interest to continue for a finite period of time during a suitable transition period, provided that the period is as short as possible.

3. Management plan.

The Conflict of Interest Committee may decide to approve an activity subject to a suitable management plan. The management plan may include but is not limited to:

- a. Requiring the individual to recuse him/herself from particular business decisions.
- b. Requiring the individual to inform certain persons or institutions about the conflict of interest and the management plan (such as the Office of Research Compliance, IRBs, IACUCs, subjects, state and federal officials, research sponsors, co-investigators, colleagues, junior colleagues, students, trainees, members and prospective members of the individual's research laboratory, journals to which manuscripts about the research are submitted, and media, lay, and professional audiences with whom the research or other activity is discussed orally or in writing).
- c. Requiring the individual to refrain from participating in certain activities or aspects of activities relating to the research project (such as requiring IRB members with conflicts of interest in connection with research protocols to recuse themselves from deliberations on those protocols, or, where compelling circumstances exist to allow certain research stages or activities to proceed despite a conflict of interest, restricting the individual's roles to those stages and activities, including establishing a point in time for stopping participation and strategies to keep the individual's involvement at a minimum).
- d. Requiring the activity to be approved by additional individuals or entities (such as deans, department chairs, or program chairs).
- e. Requiring others to review academic decisions in which the individual participates.
- f. Requiring independent involvement in the research (such as in recruiting and selecting subjects, participating in or designing the consent process, providing clinical treatment to subjects apart from the research intervention or procedures, monitoring data, reviewing study design, collecting data, and determining authorship status or order).
- g. Requiring the individual to reduce, modify, or eliminate a financial interest (including divesting ownership, restricting the sale or exercise of stock and stock options, and deferring or waiving royalties or milestone payments).
- h. Requiring the individual to vacate a position.
- i. Prohibiting the individual from disclosing confidential institutional information or channeling discoveries to an outside entity.
- j. Prohibiting the research from taking place at the University.

- k. Requiring continued oversight of the activity by the Conflict of Interest Committee.

Management plans are developed according to the nature of the significant financial interest and of the sponsored research--e.g., whether there is an institutional as well as an individual conflict of interest, and whether the investigator is conducting bench, animal or human subjects research.

Before finalizing a management plan, the Conflict of Interest Committee must review the plan with the appropriate dean; in the case of University officers, with the appropriate senior official; and in the case of non-school-based non-faculty employees, with the senior University official with oversight over them. If the dean or senior official and the Conflict of Interest Committee are unable to agree on the terms of the management plan, the matter is referred to the Provost or Senior Vice President for Administration.

E. Appeals.

If an individual covered by this policy who is a faculty member is dissatisfied with a determination of the Conflict of Interest Committee, the individual may submit a written appeal to the Provost within 10 days of receipt of the decision. If the Provost upholds the Conflict of Interest Committee's determination, the Provost's decision is final. If the Provost modifies or overrules the Conflict of Interest Committee's determination, the Conflict of Interest Committee may appeal to the President.

A non-faculty employee who is dissatisfied with a determination of the Conflict of Interest Committee may submit a written appeal to the Senior Vice President for Administration within 10 days of receipt of the decision. If the Senior Vice President for Administration upholds the Conflict of Interest Committee's determination, the decision of the Senior Vice President for Administration is final. If the Senior Vice President for Administration modifies or overrules the Conflict of Interest Committee's determination, the Conflict of Interest Committee may appeal to the President.

If the individual is the President, the President may submit a written appeal to the Audit Committee of the Board of Trustees within 10 days of receipt of the decision.

If the individual is a member of the Board of Trustees, the appeal is conducted in accordance with the policies and procedures of the Board of Trustees.

If, when the Conflict of Interest Committee and the dean or senior official who reviews a management plan are unable to agree on the terms of the plan and the matter is referred to the Provost or Senior Vice President for Administration, the Conflict of Interest Committee or the dean or senior official is dissatisfied with the decision of the Provost or Senior Vice President for Administration, they may refer the matter to the President.

II. Institutional Conflict of Interest Policy.

A. Who is covered by this policy?

This institutional conflict of interest policy applies to the members of the Board of Trustees, the President, the Provost, all senior (“cabinet-level”) officials of the University (comprising the President, Provost, General Counsel, Senior Vice President for Administration, Chief Financial Officer, Vice President for Medical Affairs, the Chief of Staff, the vice presidents for Development, University Relations, and Diversity, and any other individual that the President designates), vice presidents, vice provosts, deputy provosts, deans, associate and vice deans, department chairs, academic division chiefs, directors of department-level centers, IRB chairs, the chair of the Conflict of Interest Committee, the chair of the Institutional Biosafety Committee, and directors of institutes and centers with department-level status.

B. What is an institutional conflict of interest?

An institutional conflict of interest arises when the financial interests of the University, or a University official acting within his or her authority on behalf of the University, may influence or appear to influence the research, education, clinical care, business transactions, or other activities of the University. In the case of research, the concern is that the financial interests of the University, or of a University official acting within his or her authority on behalf of the University, might affect—or reasonably appear to affect—University processes for the conduct, review, or oversight of the research.

An institutional conflict of interest also might arise when an individual covered by this policy receives a financial or other benefit from the use or disclosure of non-public information pertaining to the University.

Institutional conflicts of interest may arise when outside activities are inconsistent with an individual’s responsibilities to the University. Outside activities include leadership participation in professional, community, or charitable activities, self-employment, participation in business partnerships, employment or consulting arrangements with entities other than the University, either compensated or uncompensated, and service on any private-sector board, including for-profit, non-profit, advisory, or honorary. These activities are inconsistent with an individual’s responsibilities to the University when they adversely influence or appear to adversely influence the research, education, clinical care, business transactions, or other activities of the University.

An individual conflict of interest may raise an institutional conflict of interest issue and vice versa.

C. Reporting.

There is no separate individual reporting under the institutional conflict of interest policy. The information reported on individual conflict of interest forms is used in carrying out the institutional conflict of interest policy.

In addition, the Conflict of Interest Office periodically must receive the following information:

1. From the Senior Vice President of Finance and Chief Financial Officer, a list of the entities in which the University has any financial interest.
2. From the Board of Trustees, a list of the entities in which members of the Board of Trustees and senior officials of the University, their spouses, dependent children, domestic partners, or any other dependent person living in the same household as the individual, have any financial interest. The list of entities provided by the Audit Committee of the Board of Trustees to the Conflict of Interest Committee does not contain the identities of the individuals who have the financial interest in those entities.
3. From the Office of Development, a list of major gifts to the University.
4. From the Office of Research and Technology Management, a list of the University's equity holdings and technology licenses.

D. Review and approval.

1. What is the review process?

Reviews of reports conducted solely by the Audit Committee of the Board of Trustees are conducted according to the rules of the Board of Trustees.

In the case of all other reports, the Conflict of Interest Office conducts an initial review. If necessary, it obtains additional information from the individual covered by the policy and from other individuals who possess relevant information.

The Conflict of Interest Office also reviews potential institutional conflicts of interest that are not required to be reported by an individual, such as non-reportable potential conflicts that the Conflict of Interest Office becomes aware of based on its review of the lists it receives from the Senior Vice President of Finance and Chief Financial Officer, the Board of Trustees, the Office of Development, and the Office of Research and Technology Management.

The Conflict of Interest Office then identifies those activities that must be reviewed and approved by the Conflict of Interest Committee, and those activities that may proceed without review by the Conflict of Interest Committee, and notifies the Conflict of Interest Committee of those activities that the committee must review and approve.

2. What is the approval process?

In reviewing a reported activity, the Conflict of Interest Committee assumes that the activity cannot be undertaken without a suitable management plan. However, in some cases, the activity may be approvable without a management plan. In determining whether a management plan is required, the Conflict of Interest Committee considers the significance of the institutional conflict of interest (such as the size of the individual's

financial interest); whether or not there the individual is uniquely qualified by virtue of expertise and experience to conduct the research project and the research could not be conducted as safely or effectively without that individual; and the degree of risk imposed on research subjects.

Following are some examples of institutional conflicts of interest. In specific cases, individuals may be able to engage in some of these activities with a suitable management plan:

- a. Activities in which the University or a University official, acting within his or her authority on behalf of the University, has a financial interest (as defined below) that may adversely affect or appear to a reasonable person to adversely affect the research, education, clinical care, business transactions, or other activities of the University.
- b. Activities in which an individual covered by this policy has a financial interest that directly or indirectly might influence or appear to influence the individual's University responsibilities.
- c. Activities in which an individual covered by this policy receives a financial or other benefit from the use or disclosure of non-public information pertaining to the University.
- d. Outside activities (including leadership participation in professional, community, or charitable activities, self-employment, participation in business partnerships, any employment or consulting arrangements with entities other than the University, either compensated or uncompensated, and any service on any board, including for-profit, non-profit, advisory, or honorary) that adversely influence or appear to adversely influence the research, education, clinical care, business transactions, or other activities of the University.
- e. Research at the University on human subjects (including serving as the principal investigator or sharing in the responsibility for the design, conduct, or reporting of the research) by individuals covered by this policy who have a financial interest (as defined below), no matter how small, that the individual or the individual's spouse, dependent children, domestic partner, or any other dependent living in the same household as the individual, in any entity that sponsors the research or owns a technology that is the subject of the research.
- f. Research at the University on human subjects or on animals (including serving as the principal investigator or sharing in the responsibility for the design, conduct, or reporting of the research) by individuals covered by this policy who materially participate in a procurement or purchasing decision involving major purchases from, or non-routine supply contracts with, a commercial entity that sponsors the research.

A "financial interest" includes income; honoraria, consulting fees, advisory board fees, membership on a speaker's bureau, remuneration, gifts or other emoluments, "in kind" compensation, equity such as stock, stock options or other ownership interests; royalties;

non-university grants; debts; loans; non-university contracts; licensing agreements; inventors' shares; and a board or other position with advisory or fiduciary duties, even if uncompensated.

3. Management plan.

The Conflict of Interest Committee may decide to approve an activity subject to a suitable management plan. The management plan may include:

1. Isolating the individual from involvement in research or decision-making regarding research.
2. Requiring the individual to reduce, modify, defer, waive, or eliminate the financial interest that is the source of the conflict, such as equity holdings, royalty income, stock options and milestone payments.
3. If recusal would preclude the individual from fulfilling the responsibilities of a University position, requiring the individual to eliminate the holdings or vacate the position.
4. Requiring the individual to recuse him- or herself from institutional decisions regarding the outside entity that is source of conflict.
5. Requiring the individual to make periodic written disclosure of the conflict to all administrators, faculty, non-faculty employees, and students under individual's supervision, to the Office of Research Compliance, IRBs, IACUCs, subjects, state and federal officials, research sponsors, co-investigators, colleagues, junior colleagues, students, trainees, members and prospective members of the individual's research laboratory, journals to which manuscripts about the research are submitted, and media, lay, and professional audiences with whom the research or other activity is discussed orally or in writing.
6. Appointing independent individuals or committees to oversee high-level administrative decisions (e.g., financial decisions, space allocations, appointments and promotions) in which the individual participates.
7. Prohibiting the research from taking place at the University.
8. Eliminating, reducing, or modifying the University's financial stake in an outside entity or research project.
9. Enhancing or creating firewalls or other conflict-management systems to separate financial and research decision-making.
10. Requiring independent involvement in the research (such as in recruiting and selecting subjects, participating in or designing the consent process, providing clinical treatment to subjects apart from the research intervention or procedures, monitoring data, reviewing study design, collecting data, and determining authorship status or order).
11. Preventing the individual from serving as the principal investigator, co-principal investigator, or investigator on the research project.
12. Protecting students, trainees, junior colleagues and/or non-faculty employees by preventing or limiting their participation in the research project, preventing or limiting them from working in newly-formed

companies involving conflicted superiors, informing them of the potential conflict, giving them access to senior faculty and non-faculty employees to review questions or concerns, having academic decisions outside the research activity made or reviewed by independent individuals, and recusing the conflicted individual from the chain of authority over salary, promotion, and space allocation decisions.

13. Prohibiting the individual from participating in institutional negotiations with the outside entity except as the University directs.
14. Prohibiting the individual from serving on the board of directors of the outside entity, or as an officer, member of the scientific advisory board, member of a speakers' bureau, or consultant.
15. Prohibiting the individual from disclosing confidential University information.
16. Prohibiting the individual from channeling discoveries to the outside entity.
17. Prohibiting the university from accepting research grants from companies founded by the individual.

Before finalizing a management plan, the Conflict of Interest Committee must seek input from the appropriate University officials

E. Appeals.

When an individual with an institutional conflict of interest also has an individual conflict of interest, the appeal process under the individual conflict of interest policy applies.

In the event that an individual who does not have an individual conflict of interest is dissatisfied with a determination of the Conflict of Interest Committee, the individual may submit a written appeal to the President within 10 days of receipt of the decision. If the individual is the President, the President may submit a written appeal to the Audit Committee of the Board of Trustees within 10 days of receipt of the decision. If the individual is a member of the Audit Committee, the Audit Committee's deliberations and decision is conducted in accordance with the policies and procedures of the Board of Trustees.

If the President or the Audit Committee upholds the Conflict of Interest Committee's determination, the decision is final. If the President modifies or overrules the Conflict of Interest Committee's determination, the Conflict of Interest Committee may appeal to the Audit Committee.

III. Confidentiality

All information contained in reports or obtained in the course of reviewing a potential conflict of interest, institutional conflict of interest, or conflict of commitment, is strictly confidential. The information is only available to the Conflict of Interest Office and the individuals charged with the responsibility for review in the particular case.

IV. Sanctions

Failure to comply with these policies includes failing to submit a required report, providing false information, omitting required information, failing to maintain confidentiality, failure to carry out duties prescribed by these policies, and refusal or failure to comply with a management plan adopted under these policies.

A failure to comply with these policies may, in the case of sponsored research, result in a decision by the Vice President for Research to suspend the research project or refuse to approve a new sponsored research project for the individual who fails to comply.

A failure to comply also is subject to the full range of University disciplinary procedures, including:

1. Formal admonition.
2. A letter in the individual's file indicating that the individual's good standing as a member of the University has been called into question.
3. Ineligibility of the individual to apply for grants, IRB approval, or supervision of graduate or professional students or trainees.
4. Non-renewal of appointment.
5. Termination of employment.

The person responsible for ensuring that an individual has complied with the University's Conflict of Interest and institutional conflict of interest policies must report a failure to comply to the Conflict of Interest Office, which refers it to the Conflict of Interest Committee, except that a failure to comply by the President or a member of the Board of Trustees must be reported to the Audit Committee of the Board of Trustees.

The Conflict of Interest Committee determines if the matter can be handled by requiring the individual to comply with a corrective action plan devised by the Conflict of Interest Committee. If so, the Conflict of Interest Committee devises the plan and advises the individual of its requirements. If the Conflict of Interest Committee determines that the matter cannot be handled by requiring the individual to comply with a corrective action plan, or the individual refuses to comply, the Conflict of Interest Committee refers the matter, along with its recommendations about how the matter should be handled, to the appropriate individual or body. In the case of faculty, the Conflict of Interest Committee refers the matter to the Provost. In the case of the Provost, General Counsel, Senior Vice President for Administration, Chief Financial Officer, Vice President for Medical Affairs, the Chief of Staff, the vice presidents for Development, University Relations, and Diversity, and any other individual that the President designates as a senior "cabinet-level" official, the Conflict of Interest Committee refers the matter to the President.

If an individual other than a non-faculty employee is dissatisfied with a determination of the Conflict of Interest Committee to impose a corrective action plan or with administrative action by the Vice President for Research to suspend or refuse to approve

a sponsored research project, the individual may submit a written appeal to the Provost within 10 days of receipt of the determination. A non-faculty employee who is dissatisfied with a determination of the Conflict of Interest Committee may submit a written appeal to the Senior Vice President for Administration within 10 days of receipt of the decision.

If the Provost upholds the Conflict of Interest Committee's determination, the Provost's decision is final. If the Provost modifies or overrules the Conflict of Interest Committee's determination, the Conflict of Interest Committee may appeal to the President.

If the Senior Vice President for Administration upholds the Conflict of Interest Committee's determination, the decision of the Senior Vice President for Administration is final. If the Senior Vice President for Administration modifies or overrules the Conflict of Interest Committee's determination, the Conflict of Interest Committee may appeal to the President.

Grievance proceedings are conducted in accordance with the procedures provided in Chapter 3(I)(D) of the University Faculty Handbook and Section V-4 of the Human Resources Policy Manual.

V. Revisions to the Policies

Any revisions to these policies that are required by law or by government agency action automatically become part of these policies. Other revisions to these policies become effective upon being approved by the President, the Provost, and the Executive Committee of the Faculty Senate.

Glossary

“Faculty” – “Faculty,” as defined in the Faculty Handbook, comprises tenured or tenure track faculty members, non-tenure track faculty members, and special faculty members. Special faculty members are: 1) those persons holding part-time academic appointments, and 2) persons holding full-time academic appointments, but who have specific, limited responsibilities for the duration of a specific project, or for a limited duration. Examples of special appointments are faculty members hired for one semester, who teach one course on a repeated basis, who engage in clinical supervision only without other responsibilities to the University, or who are engaged in a specific project conducted outside the University.

“Financial interest” -- A “financial interest” includes income; honoraria; consulting fees; advisory board fees; membership on a speaker’s bureau; remuneration; gifts or other emoluments; “in kind” compensation; travel expenses, other than those paid for by the University or its hospital affiliates, or reasonable travel expenses paid for participation in scholarly and academic endeavors; equity such as stock, stock options or other ownership interests, including equity that individuals covered by this policy know they will inherit; royalties; non-university grants; debts; loans; non-university contracts; licensing agreements; inventors’ shares; and a board or other position in the private sector (including nongovernmental organizations (NGOs)) with advisory or fiduciary duties, even if uncompensated.

“Individual conflict of interest” – An outside interest that might adversely affect or appear to a reasonable person to adversely affect an individual’s judgment in carrying out University responsibilities, or that might adversely affect or appear to a reasonable person to adversely affect the University’s responsibility to the public, the safety of research subjects, or the integrity of research.

“Institutional conflict of interest” -- An institutional conflict of interest arises when the financial interests of the University, or a University official acting within his or her authority on behalf of the University, may influence or appear to influence the research, education, clinical care, business transactions, or other activities of the University; when an individual covered by this policy receives a financial or other benefit from the use or disclosure of non-public information pertaining to the University; and when outside activities are inconsistent with an individual’s responsibilities to the University.

“Investigator” – “Investigator” means the principal investigator and any other person who is significantly involved in the design, conduct or reporting of research, including the person’s spouse and dependent children. The term also includes investigators working for subgrantees, contractors, subcontractors, and collaborators.

“Outside activities” -- Outside activities include leadership participation in professional, community, or charitable activities, self-employment, participation in business partnerships, employment or consulting arrangements with entities other than the

University, either compensated or uncompensated, and service on any board, including for-profit, non-profit, advisory, or honorary.

“Senior officials” – “Cabinet-level” officials of the University (comprising the President, Provost, General Counsel, Senior Vice President for Administration, Chief Financial Officer, Vice President for Medical Affairs, the Chief of Staff, the vice presidents for Development, University Relations, and Diversity, and any other individual that the President designates).

PROPOSAL	Cost	Unranked low	Ignore unranked	Weighted	Ranking
Additional Funding for Merit-based Undergraduate Scholarships	\$28k/student/year	145	132	225	1 by all measures
Technology Enhanced Classrooms	\$800k/year	204	191	181	2 by all measures
Expansion of Health Insurance Coverage for Students	Dental: \$400/student/year Vaccines: \$115k/student/year	223	197	166	3 by all measures
Core Funding for High Performance Computing Facility	\$205k/yr	230	217	138	4 or 5
Experiential Learning Funding (Travel Awards) for Students	20 awards/year \$5K/student, so \$100k/year	257	244	155	5 or 4
Improve Availability and Cost of Parking on Campus		278	265	115	
Improved Involvement of Case with Surrounding Community		325	273	66	
Funding for Staff Position in Office of Budget and Financial Planning		333	268	94	
Globalization and IT Requirements		338	286	63	
Improved Eco-friendly Policies, Including Recycling Across Campus		343	291	68	
Development Officer for KSL Library		356	317	71	
E-Portfolio and Assessment		358	306	59	
Greening and IT on campus		390	338	42	

Final Draft, Revisions to Faculty Handbook Regarding Undergraduate Education

Faculty Senate Ad Hoc Committee on Governance of Undergraduate Education and Life

Proposed addition to Art. VI. Committees of the Faculty Senate

Sec. E. Committee on Undergraduate Education (CUE)

Par. 1. The Committee on Undergraduate Education shall consist of (1) the following voting members: the Provost, *ex officio*, three voting members of the University Faculty elected by the Faculty Senate for overlapping three-year terms, one representative each from the College of Arts & Sciences, the Case School of Engineering, the Frances Payne Bolton School of Nursing, and the Weatherhead School of Management appointed by the executive committee/faculty council, one voting member of the University Faculty from the Department of Physical Education and Athletics, one voting member from the University Faculty from the Departments in the Case School of Medicine that offer undergraduate majors, two undergraduate students selected by the Undergraduate Student Government for a one-year term; and (2) Up to four non-voting members, designated by the Provost from among members of the administration with the rank of deputy, vice or associate-provost, vice-president, or dean and having specific responsibility for undergraduate education and life. (Hereinafter, voting members of the University Faculty who have a primary or joint appointment in at least one of these four constituent faculties, or in the Department of Physical Education and Athletics, or in one of the Departments in the Case School of Medicine that offer undergraduate majors are collectively referred to as the “Undergraduate Program Faculty”, or “UPF”.) The Faculty Senate shall appoint a chair and vice chair from the voting members of the Undergraduate Program Faculty who are members of the Committee on Undergraduate Education, with either the chair or the vice chair assuming the role of chair in the subsequent year, assisted by the vice chair appointed in that year.

Par. 2. (a) The Undergraduate Program Faculty is responsible for the basic policies that govern undergraduate education at the University. The Committee on Undergraduate Education shall review and recommend to the Faculty Senate with respect to changes in standards of admission for undergraduate students; changes in academic requirements and regulations for undergraduate students; curricula, contents, and standards for newly-proposed undergraduate degree programs¹; changes in existing undergraduate curricula and degree programs within a constituent faculty that specifically influence undergraduate degree programs ~~or students enrolled in other constituent faculties undergraduate degree programs in other constituent faculties~~ (the Provost, or the Provost’s designee, in consultation with the chair of the Committee on Undergraduate Education will decide which course action forms require review by the Committee); resource allocations for undergraduate education, outcome assessment of undergraduate degree programs, the

¹ Degree programs are the major and minor academic programs that are officially recognized by the Office of Undergraduate Studies and appear on an official academic transcript of a student.

discontinuance of existing undergraduate degree programs; standards for undergraduate academic standing; standards for receipt and retention of merit-based undergraduate financial aid; standards of undergraduate academic integrity and student conduct; standards and facilities for undergraduate research and scholarship; and conditions of undergraduate student life. ~~The Committee on Undergraduate Education shall be responsible for the interpretation interpreting of existing policies and assuring the application of existing academic rules regarding to decide cases that involve academic probation, separation, and readmission; to review and to decide upon applications for undergraduate admission to the University; and to decide cases of receipt and retention of merit-based undergraduate financial aid; and to~~ It shall report ~~its-its~~ actions to the Faculty Senate as well as the appropriate administrative offices. The Committee on Undergraduate Education shall receive regular reports from the executive or other governing committees of the constituent faculties, departments, or programs of the UPF that involve matters of undergraduate education not within the charge of the Committee on Undergraduate Education and as a matter of communication transmit them to the Faculty Senate as well as the appropriate administrative offices. The Committee on Undergraduate Education shall be empowered to form subcommittees as it judges appropriate to discharge its duties and to appoint to these subcommittees voting members of the University Faculty, staff members from administrative units that serve the undergraduate mission, and undergraduate students.

Formatted: Font color: Red

Formatted: Font color: Red

Formatted: Font color: Red

Formatted: Font color: Red

(b) The Undergraduate Program Faculty is responsible for the administration of all undergraduate programs at the University. All proposals for undergraduate courses and programs must be submitted for appropriate review through at least one of the four UPF Constituent Faculties.

Par. 3. (a) When issues arise that in the judgment of the Chair or a majority of the members of the Committee on Undergraduate Education, or of the Chair of the Faculty Senate involve important basic policies that govern undergraduate education at the University and extend beyond degree programs in a constituent faculty, the Committee on Undergraduate Education may refer proposals for action to a meeting of the Undergraduate Program Faculty for discussion. After that meeting, eligible faculty members in those faculties, departments, or programs shall vote on proposals by electronic ballot. The result of that vote shall be conveyed to the Faculty Senate for action at its next meeting after the vote.

(b) Meetings of the Undergraduate Program Faculty defined in Par. 3(a) to consider proposals for action regarding issues that involve important basic policies that govern undergraduate education at the University and extend beyond degree programs in a constituent faculty may also be called by the President, by the Provost, by the Chair of Committee on Undergraduate Education, by the Chair of the Faculty Senate, or upon written petition, stating the proposal for action at the meeting and signed by not less than 10 (ten) percent of the total number of eligible voting members of the UPF. Such a petition shall be delivered to the Chair of the Committee on Undergraduate Education, who shall certify the signatures to the Committee. The Committee on Undergraduate Education shall specify a meeting date upon receipt of the Petition, such meeting to take place no later than 30 (thirty) calendar days after receipt of the petition.

(c) The President, or in the absence of the President, the Provost, or in the absence of the Provost, the Chair of the Committee on Undergraduate Education, shall preside at all meetings of the Undergraduate Program Faculty defined in Par. 3(a).

Par. 4. In discharging its responsibilities, the Committee on Undergraduate Education shall observe university policies governing academic freedom.

Legislative Notes (for inclusion in the resolution forwarding this amendment to the University Faculty, but not for inclusion in the Constitution of the University)

1. The CUE, once constituted, shall establish with all due haste those sub-committees that it deems necessary for its efficient and effective execution of its charge.
2. The executive committee/faculty council of each of the four constituent faculties of the UPF shall, whenever possible, designate as its representative to the CUE the member of their regular faculty who has primary responsibility for the governance of undergraduate education and life within that constituent faculty.
3. The following non-voting members: the Vice Provost for Undergraduate Education, the Dean of Undergraduate Studies, the Vice President for Student Affairs, and the Vice President for Enrollment, or their designated representatives.

Formatted: Font: Bold

**COMMENTARY for the Final Draft
Revisions to Faculty Handbook Regarding Undergraduate Education**

**Faculty Senate Ad Hoc Committee on
Governance of Undergraduate Education and Life**

At the end of the 2007-2008 academic year, the Faculty Senate, FS, created an *ad hoc* Committee on the Governance of Undergraduate Education and Life, ComGUGEL, to study the governance of undergraduate education at CWRU and suggest alternatives to the existing governance body, the University Undergraduate Faculty, UUF, and its various committees. The *ad hoc* committee, consisting of Ken Loparo (chair), Gary Chottiner, Elizabeth Click, Pat Crago, Bill Deal, Robin Dubin, Don Feke, Jill Korbin, Ken Ledford, Lynn Lotas, Roger Marchant, Glenn Nichols, Myles Nickolich and Liz Woyczynski met during the summer of 2008. A proposal was delivered to the FS, circulated to several university constituencies for comment, and then revised in December 2008 on the basis of this feedback.

The proposal centered on replacing the University Undergraduate Faculty, UUF, governance structure by a Faculty Senate Committee on Undergraduate Education, FSCUE. This change requires that 12 pages of detailed UUF by-laws be condensed to a few paragraphs in the Constitution of the University Faculty. The ComGUGEL devoted considerable time to discussions of how the proposed FSCUE might function. It is not practical or desirable to incorporate all the details of these discussions into the revised by-laws but we do wish to record and distribute some elements of our deliberations, both to aid in the discussion of the proposal by those who will vote on it, and (*if the proposal is approved*) to provide guidance to members of the FSCUE. The contents of this document do not have the force of the by-laws, so the FS and FSCUE will be free to adopt, ignore or modify them as they see fit. However, we hope that these notes will be helpful and that they will be preserved in some fashion, perhaps as part of the minutes of a FS meeting.

The reasons for replacing the UUF, and the issues we have attempted to address in this proposal, are:

1. The structure of the UUF is complex, inefficient, and understood by few faculty or other members of the university community. The six standing UUF committees have a total of 84 members. One of the committees (*the Committee on Academic Computing*) has not even met in several years.
2. It is difficult to staff the UUF committees with people who have the appropriate background and who take an active interest in the affairs of the UUF.
3. While in principle subordinate to the Faculty Senate, the UUF has largely operated independently from the FS and without oversight. The UUF and FS by-laws provide little guidance about the relationship of these two bodies. These by-laws mandate only a single report, on routine curricular actions, each semester from the UUF to the FS, and even this is sometimes overlooked.
4. The UUF is unsure of its own authority, sometimes ceding powers it should be

exercising, such as a voice in standards and goals for admission of undergraduates, and other times infringing on powers that the constituent faculties believe are theirs.

5. The UUF has not reliably been effective in its duties. One commonly cited example is its failure to provide a mandated report on the Impact of SAGES during a critical period of time.
6. In contrast to the FS, the UUF has often had little interaction or influence with the Provost and President and has no direct input into overall university priorities or budgeting.

The proposal for a FSCUE addresses the shortcomings of the UUF by:

1. Clarifying the reporting structure, responsibilities and authority of the faculty body charged with governing undergraduate education and life.
2. Giving the FS the responsibility of selecting the chair and vice chair of the committee and the oversight to insure that the committee is fulfilling its mandate.
3. Reducing the number of faculty involved in undergraduate governance while insuring that those individuals that best understand curricular and institutional issues are members of the committee.
4. Making sure that the mandate and authority of the committee is clearly defined.
5. Providing the FSCUE with access, through the FS, to university leaders and to the budgeting process.
6. Integrating faculty governance of undergraduate education into overall university governance while maintaining important elements of distinction for this aspect of the university's mission.

The following paragraphs point out some of the important issues that the ComGUGEL encountered during our deliberations, explains our decisions, and provides guidance to the FS and FSCUE about how the FSCUE might operate in practice.

Paragraph 1 of the proposed by-laws describes the composition of the FSCUE with the Chair and Vice Chair selected by the FS from the voting UPF faculty on the committee.

Voting Members – 12

Provost, *ex officio*

3 members of the University Faculty (*UF not UPF*) elected by the FS

4 members appointed by faculty committees that oversee undergraduate education in the CAS, CSE, WSOM & FPBSON

1 member to represent the Departments of Nutrition and Biochemistry

1 member from Physical Education and Athletics

2 undergraduate students

Chair and Vice Chair, chosen from one of the UPF members identified above

Nonvoting Members - 4

Vice Provost for Undergraduate Education

Dean of Undergraduate Studies

Vice President for Student Affairs

Vice President for Enrollment

Each of these nonvoting members can choose to designate a representative

There are several issues in paragraph 1 which merit discussion.

1. We strove to balance a desire to keep the number of members to a practical value against arguments to make the membership as inclusive as possible. The number now stands at 16. For comparison, the UUF committees had 81 members. A fairer comparison would be to the 19 members of the UUFXC plus the 17 members of the UUFCC, and perhaps including the 15 members of the UUF Committee on Student Life, Services, and Environment. We say this is fairer because the UUF Committees on Academic Standing and Admissions will likely be retained in some fashion as subcommittees of the FSCUE.
2. The voting committee members are not given the authority to appoint representatives to take their seats and cast their votes on the FSCUE, either for single meetings or for an entire term. (*Robert's Rules of Orders states that bylaws must explicitly provide this authority or it does not exist.*) Committee members can request that the Chair of the FSCUE allow them to identify a representative to attend meetings in their stead, but such representatives will be guests of the committee and will not have the right to cast votes.
3. The 4 non-voting members are given the authority to appoint representatives to take their seats. Some of these members regularly attend UUF meetings (and will likely attend FSCUE meetings) but others do not and we want to allow, for example, the VP of Enrollment to have the person in charge of Undergraduate Admissions attend FSCUE meetings.
4. The Deans of the constituent faculties are not represented on the FSCUE. While input from these Deans may often be critical to the business of the FSCUE, it was felt that the necessary communication should be a responsibility of the faculty members representing each of the schools. We would, however, encourage the committee to offer the Deans, or their representatives, the opportunity to attend meetings as guests of the committee and keep them in the loop for all communications that might be of interest to them.
5. The proposal does not incorporate proportional faculty representation of the schools that was typical for UUF committees (typically 3, 2, 1, 1 for the CAS, CSE, WSOM, FPBSON). We felt that there was little point in adding members just for this purpose. While there occasionally arise issues over which schools disagree, such issues generally require direct negotiation between the schools and/or intervention by the Provost; a vote of the UUF or of the FSCUE would not normally settle these matters. In any case, with 16 members on the FSCUE, it is more important to the success of a proposal that it have convincing supporting arguments rather than the vote of another member or two from the CSE and CAS.

One should also note that the FS will appoint 3 members to the committee, and may on its own authority choose to consider proportional representation as a factor in these appointments.

6. Robert's Rules of Order prohibits mail or electronic ballots unless the by-laws specifically allow for them. We have made no such allowance for meetings of the FSCUE (*although they are required for meetings of the entire Undergraduate Program Faculty*). Members of the FSCUE must attend meetings of the committee and hear any discussion before voting on matters before the committee.
7. The FS nominating committee is responsible for identifying members (*other than ex officio members*) of the FSCUE, as they are for other FS committees. This will include members from PHED and the SOM, as well as the two student members, although USG and the Offices of UG Studies and Student Life should be invited to assist in identifying student members.
8. We discussed at length whether Physical Education and the SOM should be represented on the FSCUE. The SOM does not directly grant undergraduate degrees but they do offer two important majors (*Biochemistry and Nutrition, with degrees given through the CAS*) and they have representation on the current UUFXC and the UUFCC, so it made sense to include them on the FSCUE. Physical Education does not have representatives on the UUFXC or UUFCC but this department is an important part of student life and, since student life issues will now be handled by the FSCUE, we felt this justified representation on the committee.

The ComGUGEL did not specify precisely how these representatives should be identified. We felt it was better to leave these issues to the discretion of the FS rather than dictate some particular mechanism in the bylaws. The FS may, for example, request that the members from PHED and SOM be elected by faculty in those departments. It might also set up a system to determine how the Departments of Nutrition and Biochemistry share their seat on the committee over time.

9. Continuity of membership, and particularly of leadership, is critical to effective operation of the FSCUE. This is an important reason for giving the FS the authority to appoint 3 at-large members for 3-year overlapping terms. We encourage the FS to identify no later than March the individuals who will serve on the FSCUE the following academic year. The term of appointments should be set such that the FSCUE and its subcommittees can work over the summer when necessary (perhaps starting and ending terms at commencement or in mid-August).
10. The initial draft proposal included on the FSCUE the chairs of the CAS, CSE, WSOM and FPBSON school curriculum and executive committees, 8 members.

An intermediate draft reduced this to the 4 chairs of the school executive committees. The current draft instead allows the highest ranking faculty committee within each school to determine who should represent that school. This gives schools more flexibility in determining who should represent their interests and also makes it easier for someone to serve in this capacity for more than a single year, which might otherwise be difficult, particularly for the CAS and CSE.

11. We have also provided the FS with the flexibility to appoint chairs to multiple year terms and/or to have on the FSCUE at the same time a chair, chair elect/vice chair, and chair emeritus (*although the chair emeritus would have to serve as an at-large member*). The ComGUGEL considered restricting these appointments to the UPF, but felt that it was better to elect these members from the University Faculty at-large. With that said, we recommend that the FS Leadership and Nominating Committee make these selections with care to insure that these members have deep interest in undergraduate education.
12. The ComGUGEL did not feel it necessary to write into the by-laws any expectation that the position of chair of the FSCUE rotate between the schools on a regular basis. This should be only one of several factors that the FS considers when appointing the chair. The same flexibility is allowed for the three at-large positions; we trust that the FS will allocate these fairly.
13. The ComGUGEL discussed whether having 4 members appointed by each school might mean additional work for those members. However, with this proposal there is less faculty effort overall since the chairs of the school Executive and Curriculum Committees currently serve as ex officio members of the corresponding UUF committees.
14. We have not provided a mandate for the frequency of meetings of the FSCUE. This is something that we feel should not be written into the bylaws. We expect that monthly meetings will be necessary and will suffice, assuming that curricular issues (*course and program actions*) will be handled much more efficiently as described below. Since the FS oversees the FSCUE, the FS can mandate a meeting regime if necessary.
15. We chose to identify the former UUF as the UPF. It is useful to have a simple way to refer to the faculty who the FSCUE represents but it is also important to avoid confusion with the UUF.

Paragraph 2 of the proposed bylaws describes the responsibilities and authority of the FSCUE. The ComGUGEL debated the wisdom of listing all the responsibilities of the FSCUE compared to making only a more general statement that this committee should be responsible for faculty oversight of all aspects of undergraduate education and life. A list may not be complete and could leave the impression that certain issues are not the

responsibility of this committee. A general statement may not clearly indicate the breadth of tasks that the committee should take on. We've compromised by starting with a general statement similar to one in the current UUF bylaws, followed by a specific list of responsibilities. There may arise issues not on this list but, if they involve faculty oversight of undergraduate education or life, the FSCUE should assume that it is their responsibility.

1. The language that the FSCUE **reviews** and **recommends** to the FS is taken from the current UUF bylaws. Later in this paragraph some issues are described that do not require review by the FS (*but are still reported to them*) but any substantive change in policy should be approved by the FS before it is implemented.
2. We've taken care to point out that the FSCUE has responsibility for curricula, etc. that have effects **beyond** a single constituent faculty. Courses and degree programs offered for the benefit of a constituent faculty's own students, and not used by any other schools as a requirement for a degree program, should not require approval by the FSCUE. For example, changes in humanities and social science courses, even though these courses may be taken as electives by students across the University to satisfy degree requirements, should not normally require approval beyond the CAS. Similarly, very few courses offered by the CSE, WSOM and FPBSON should require approval of other schools, although a change such as adding or dropping a course as a degree requirement, if that course is offered by a different school, should flow through the FSCUE. This does not mean that approval by the FSCUE is necessary, but the change should not be implemented until the FSCUE has had an opportunity to review the change and, if necessary, recommend further action to the FS and/or Provost. Other changes will normally be implemented immediately by the Registrar or Office of Undergraduate Studies, as appropriate, and will be reported to the FS; that is, implementation of routine course and program actions need not wait for FS approval since this would result in a process more complex and slower than the one in place now, with no offsetting benefits.
3. It is important, however, to establish an administrative procedure to determine which curricular issues are solely the responsibility of a school. This should not be left solely to the discretion of the schools themselves, which might not appreciate the impact their proposals could have on other schools. We have identified the Provost or his designee (most likely the Dean of Undergraduate Studies) to make these decisions, in consultation with the chair of the FSCUE. This is, in fact, the process put in place last year by the UUF Committee on Curriculum; the Dean of Undergraduate Studies and the Chair of the UUFCC identified actions that merited the full attention of the UUFCC.

There are two important reasons for delegating this power to the Provost. As chief academic officer of the University, the Provost is the person best positioned to handle complex interschool issues. We expect that the Provost will ask the

Dean of Undergraduate Studies to vet more routine course and program actions. The Dean of Undergraduate Studies is an authority on cross-school issues and this office is uniquely positioned to determine the effects that an action of one school might have on another school.

4. To alleviate concerns that the curricular actions of one school might inadvertently have an adverse effect on a second school that had not been notified of the change because the second school did not list the course in its formal requirements, we have included a notification (*regular reports*) clause. All undergraduate curricular and student life changes, even those that are completely within a single school, should be reported to the FSCUE and through them to the FS. It should be possible to handle most of these changes with a minimum of faculty effort as an administrative task, with the Office of Undergraduate Studies and the Registrar forwarding regular reports to the FSCUE/FS about changes in undergraduate courses and degree programs that those offices receive and implement. This reporting requirement exists in the current UUF bylaws (*routine curricular matters are reported by the UUFXC to the FS once each semester*), so it is not a new burden on the schools.
5. The FSCUE is given the charge to review *new* degree programs from any school but can review *changes* in degree programs only if these changes have a significant effect on another school. The reason for this asymmetry is that new degree programs require FS and Board of Trustees approval but the same is not true of changes in degree programs. We did not wish to remove this asymmetry at the expense of expanding the authority of the FSCUE *vis a vis* the constituent faculties.
6. We tried to carefully delineate those aspects of undergraduate issues that require the approval of the FS before implementation from those on which decisions of the FSCUE and its subcommittees are final. This is important because certain issues, such as academic standing rulings (*probation, scholarship retention, etc.*) must be handled on a short time basis and with no ambiguity in the authority of those who make the rulings (*to minimize student concerns about due process*). In brief, changes in policies will not take effect until the FS has given its approval. However implementation of existing policies (*including straight-forward curricular actions*) does not require approval of the FS, although the FSCUE will provide reports to the FS concerning these actions. It should be noted that under existing rules, changes in policies approved by the UUF Executive Committee do not take effect until approved by the full UUF. As the FS meets more often than the UUF, it should be possible to implement new policies more quickly.
7. Robert's Rules of Order specifies that a committee may form subcommittees composed of its own members. It is important to give the FSCUE broader authority to form subcommittees that include members not on FSCUE or the FS. We expect that FSCUE may wish to form such subcommittees to replace the UUF Committee on Academic Standing and the UUF Committee on Admissions. Both

committees review significant numbers of individual cases; these duties don't require the direct attention of the FSCUE and can appropriately be handled with subcommittees whose members are recommended by and whose actions are overseen by the Dean of Undergraduate Studies and the Vice President of Enrollment, respectively (*and who currently serve as ex officio chairs of these UUF committees*). These subcommittees would still report to the FSCUE and the FS, and *policy* changes related to academic standing and undergraduate admissions will remain the business of the FSCUE and FS.

8. The limited authority of the FSCUE over merit-based undergraduate financial aid is made explicit in these bylaws. It can be argued that the UUF and FS have always implicitly had this authority but it is important that this be formalized.
9. Par. 2b was added to address concerns about course and program proposals made by faculty who do not belong to the UPF. Currently the UUFCC serves as the undergraduate curriculum committee for such proposals but we propose that in the future these should first go through a UPF school or department curriculum committee. This means the CAS, CSE, WSOM, & FPBSON curriculum committees should see these proposals before they are sent to the FSCUE. Although the Departments of Nutrition, Biochemistry and PHED are part of the UPF, curricular actions by non-UPF departments should not be routed through these departments for forwarding directly to the FSCUE.

Paragraph 3 provides for the possibility of a special meeting of the UPF to discuss and vote on issues. This is similar to the existing authority of the UUFXC to call special meetings of the UUF; this has been done for issues such as SAGES and plus/minus grading. We've given this authority to the FS and FSCUE in order to preserve the power of the UUF constituent faculties to take action when circumstances warrant it. A reading of the University Constitution suggests that similar existing provisions for the University Faculty (*as opposed to the UUF*) to act in the fashion of the UUF are inadequate. For example, a quorum is 30 or 40% of all voting University Faculty members and it's unlikely this could be achieved for an issue of interest mainly to the undergraduate schools.

1. It should be noted that the twice-yearly regular meetings of the UUF are to be eliminated. Attendance at these meetings has generally been sparse, often totaling fewer than 10% of the faculty. The regular meetings of the University Faculty should suffice for most purposes.
2. We were concerned about who should have the authority to call a special meeting of the UPF and decided to grant this power to both the chair of the FS and FSCUE, as well as to the President and Provost. The UPF can also demand a special meeting by petition of 10% of the faculty. We considered adding a provision that would allow any constituent faculty to require a special meeting of the UPF but decided that 10% of the total UPF was a low enough threshold to negate this concern.

3. Robert's Rules of Order does not allow mail or electronic ballots unless the bylaws provide for this option. Since it is often difficult for faculty to attend meetings at arbitrary times and since we did not want to disenfranchise faculty because of scheduling issues, we have provided that votes on issues discussed at special meetings should be handled electronically.
4. There was some discussion about the 30-day period to schedule a meeting of the UPF after the request is made. Some thought this might be too short a timeframe while others made the observation that very important special meetings have been scheduled on two weeks' notice.

Legislative Notes (for inclusion in the resolution forwarding this amendment to the University Faculty, but not for inclusion in the Constitution of the University)

- 1, The CUE, once constituted, shall establish with all due haste those sub-committees that it deems necessary for its efficient and effective execution of its charge.
2. The executive committee/faculty council of each of the four constituent faculties of the UPF shall, whenever possible, designate as its representative to the CUE the member of their regular faculty who has primary responsibility for the governance of undergraduate education and life within that constituent faculty.
3. The following non-voting members: the Vice Provost for Undergraduate Education, the Dean of Undergraduate Studies, the Vice President for Student Affairs, and the Vice President for Enrollment, or their designated representatives.



CASE WESTERN RESERVE
UNIVERSITY EST. 1826

Information Technology Services

Network Upgrade Overview

FY10-14

Faculty Senate
January 27, 2009

Lev Gonick



\$27m

**THE 7 YEAR INVESTMENT FROM FY02-FY09 IN
NETWORK ELECTRONICS APPROVED BY THE
BOARD (ALONG WITH A COMMITMENT TO REFRESH)**

2004

**THE LAST YEAR CASE WESTERN RESERVE
UNIVERSITY SPENT A NEW DOLLAR ON NETWORK
INFRASTRUCTURE**

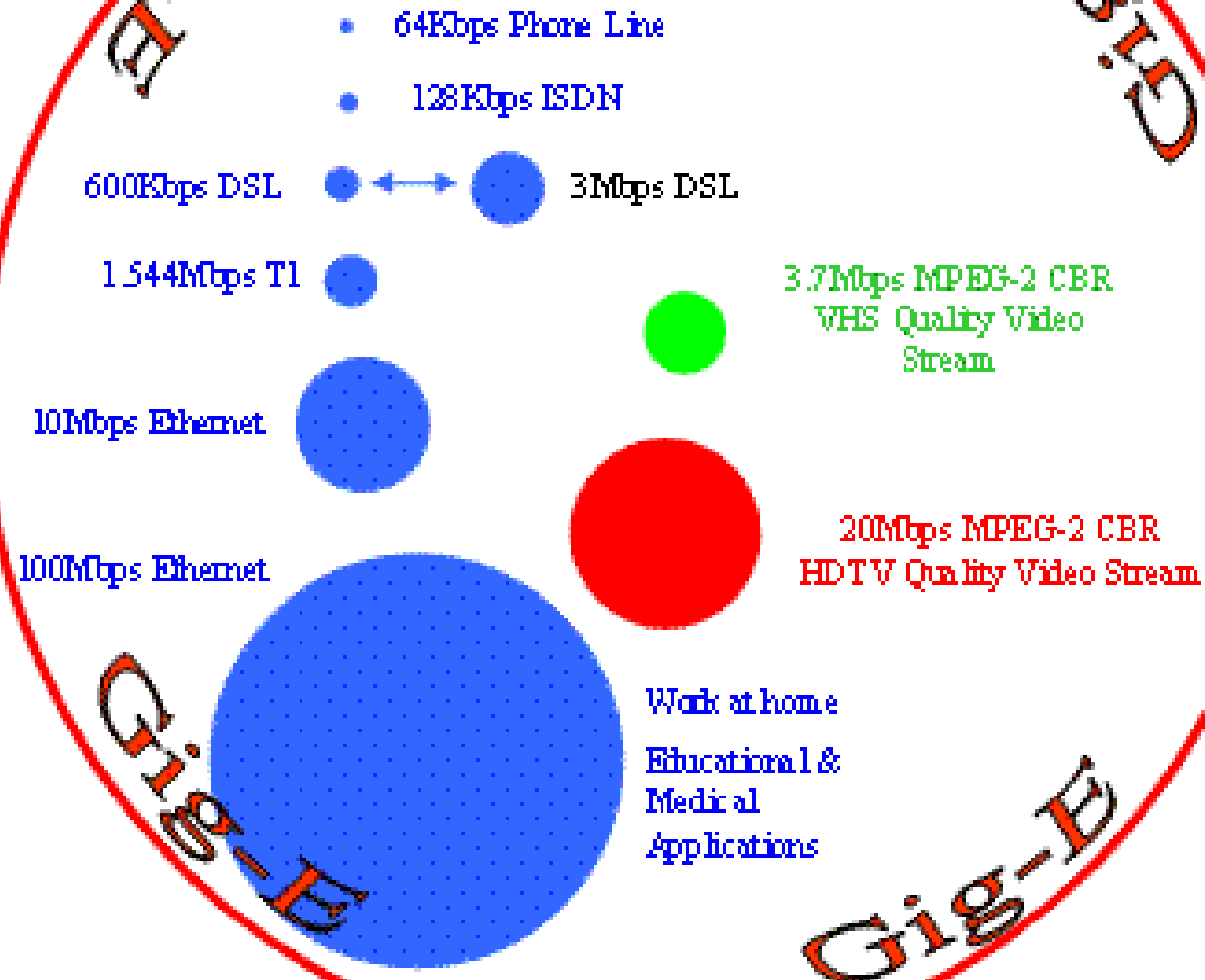
32 Mbps

**THE AMOUNT OF COMMODITY BANDWIDTH CWRU
HAD IN 2002**

1000 Mbps

**THE CURRENT COMMODITY BANDWIDTH
AVAILABLE TO THE UNIVERSITY
(THROUGH ONECOMMUNITY)**

Bandwidth Comparisons



300,000

**AVERAGE DAILY EMAIL TRAFFIC ON CAMPUS IN
2002**

2,500,000

**EMAILS DELIVERED AND SENT EVERY DAY IN
2008 ... NOT ALL OF IT SPAM**

50 MB

**SIZE OF INDIVIDUAL INBOX FOR EMAIL ON
CAMPUS IN 2002**

7261 MB

**CURRENT SIZE OF INDIVIDUAL CWRU EMAIL
INBOX
WITH GOOGLE APPS FOR EDUCATION**

300

**DAILY SIMULTANEOUS WIRELESS USERS IN
NOVEMBER 2002**

2732

**NUMBER OF SIMULTANEOUS MOBILE WIRELESS
USERS ON THE CAMPUS NETWORK THIS PAST
THURSDAY AFTERNOON**

90-10

**PERCENTAGE OF FRESHMEN STUDENTS WITH
DESKTOP COMPUTERS AS COMPARED TO
MOBILE NOTEBOOKS IN 2002**

10-90

**PERCENTAGE OF FRESHMEN STUDENTS WITH
DESKTOP TOP COMPUTERS COMPARED TO
MOBILE NOTEBOOKS IN 2008**

130

SERVERS IN THE CAMPUS DATA CENTERS IN 2002

400+

SERVERS CURRENTLY MANAGED BY ITS

< 1 Terabyte

CENTRALLY MANAGED STORAGE IN 2002
(NOT ON THE MAINFRAME)

~75 Terabytes

**OF CENTRALLY MANAGED STORAGE AND
BACKUP**

0-0-0-0

**2004 HPC RESEARCH ACCOUNTS, DEPARTMENTS
AND RESEARCH GROUPS**

203 -25 -70

**CURRENT HPC RESEARCH ACCOUNTS,
DIFFERENT DEPARTMENTS, DIFFERENT
RESEARCH GROUPS**

RISK

- Aging network infrastructure investments are failing.
- Cannibalizing and triage are not a sound management practice
- Growing obsolescence puts the University in a critical path by FY13 by which time we will need to update everything
- Currently, the data center (the heart of the network) is at risk because no redundant server aggregation layer
- Lack of 802.11n wireless protocol (3rd Generation) places the University at risk in terms of the delivery of core academic programs and reputational risk.
- Delay of implementation of mobility services will mean not keeping up with demand
- Demand for new collaboration technologies require infrastructure investments
- Campus strategic planning for Globalization will require careful analysis of the risks of the current infrastructure to support this arc of activity.

Guiding Principles

- Remediate problems
- Mitigate risks
- Enhance reliability, manageability, performance and functionality
- Follow industry best practice
- Architect for the future (investment protection)
 - Mobility
 - Speed
 - Green
 - Collaboration infrastructure

	FY10	FY11	FY12	FY13	FY14
Data Center Upgrade	→				
Network Edge Redesign		→			
Wireless Upgrade	→				
802.11n Deployment			→		
Access & Distribution Layer Upgrade			→		
Unified Communication Update	→				
Mobility Support	→				
Security Upgrade			→		
Cost, Equipment & Implementation	\$4,201,225	\$4,643,242	\$3,951,182	\$3,652,727	\$3,528,141

Total 5 year cost = \$20,431,517

AND NOW THE HARD PART

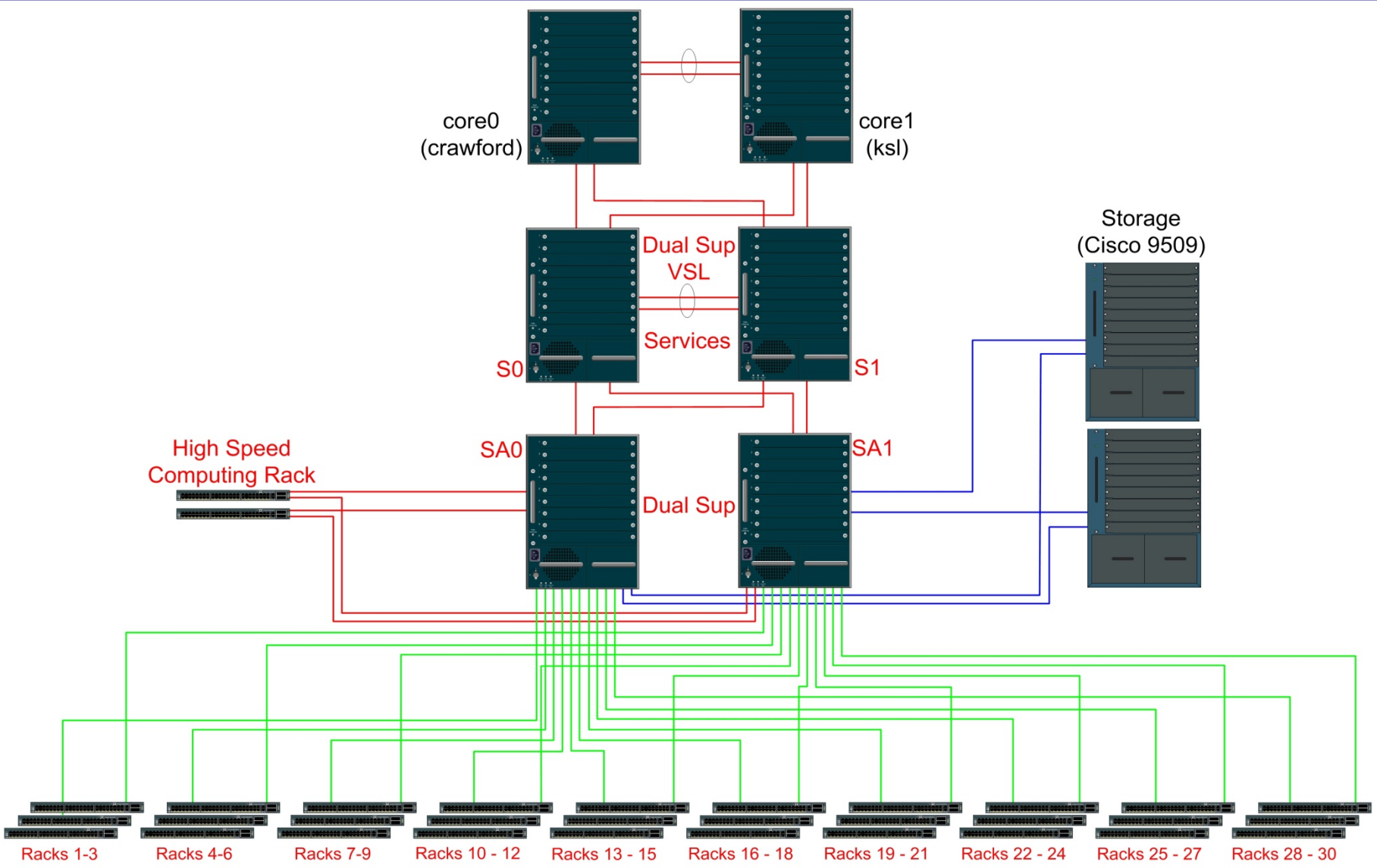
- Funding for Network Refresh and Renewal is a capital investment.
 - 25 years ago when universities began to identify technology as a capital investment, Case Western Reserve University did not treat IT as a capital budget item.
 - The FY2002 \$27m 7 year program was taken out as an internal cash loan from the University Treasurer.
- We have three iterelated options:
 - Develop a capital allocation process that includes IT.
 - Borrow \$20m (internal/external)
 - Develop a charge-back program

Peer Comparisons 2007 (Source: Educause 2007 Core Survey Confidential Information)

University	Total Funding	Operating	Capital	Charge Back	Internal Loan	Central IT Staff::Student FTE	Central IT as Percentage of University Budget	Central IT Staff Percentage of Campus IT FTE
Rensselaer	\$18.7m	\$14.9m	\$0.2m	\$3.1m		43.7	5.60%	85.47%
Case Western Reserve	\$20.9m	\$14.3m	\$0.00	\$2.3m	\$4.3m	81.02	2.68%	52.33%
Carnegie Mellon	\$22.8m	\$14.8m	\$1.2m	\$6.8m		47.88	3.67%	NA
Northwestern	\$29.0m	\$11.7m	\$1.8m	\$14.3m		64.3	2.34%	44.85%
Syracuse	\$29.5m	\$18.6m	\$1.4m	\$9.3m		93.56	4.65%	52.37%
Brown	\$30.0m	\$20.0m	\$6.0m	\$4.0m		48.63	5.41%	51.43%
Vanderbilt	\$34.5m	\$17.8m	\$2.5m	\$14.3m		55.1	5.28%	NA
Rochester	\$44.6m	\$9.4m	\$2.0m	\$32.1m		NA	NA	NA
Emory	\$54.2m	\$25.4m	\$0.0m	\$28.8m		35.84	4.49%	47.87%

Data Center Upgrade

- Activities
 - Replace Data Center Distribution Layer
 - Install remaining rack switches
 - Replace CSM and other service modules
 - Implement cross data center load balancing
- Functionality
 - Improved redundancy, fault tolerance and security
 - Significant performance adding the ability to support some 10 Gbps connections
 - Improved cable management reduces cable “spaghetti” and risk of error
 - Follows Cisco recommended best-practices design
- Equipment Changes or Additions
 - Replace content switching module with application content engine module
 - Add redundant data center distribution and rack (access) layer switches



Legend

	10/100/1000 Copper
	Gigabit Ethernet – Layer 3
	3 x 10 Gigabit Ethernet (one per rack)
	10 Gigabit Ethernet
	4948-10GE

Cisco Confidential

Title: CASE Data Center Upgrade

Engineer: Tom Newsome

Date: 8/31/2007

Data Center

File Name: CASE Data Center Upgrade - version 1.0.vsd

Owner: Cisco Systems

Rev. Eng: TN

Rev. 1.0

Drawing No. 1 of 1



Data Center Firewall Redesign

- Activities
 - Create separate security contexts by application
- Functionality
 - Improves security
 - Significantly reduces access rule complexity (resolving some firewall issues)
 - Facilitates compartmentalization of applications
 - Better maintainability and access management
 - Ability to logically isolate 3rd party servers in the data center
- Equipment Changes or Additions
 - None

Network Edge Redesign

- Activities
 - Deploy new redundant off-campus connection
 - Replace network edge
- Functionality
 - Provides a geographically separate, redundant off-campus connection
 - Establishes multiple layers of perimeter security
 - Provides enhanced firewall throughput
 - Simplifies perimeter security policy
- Equipment Changes or Additions
 - New routers and firewalls and intrusion detection appliances

Upgrade plan calls for a new, redundant, geographically separate, off-campus connection at Crawford Hall using a geographically separate fiber path to the service provider

Crawford Hall



Case Network

Cedar Avenue
Service Center



Currently, a single off-campus network connection exists through Cedar Avenue Service Center

Off-Campus Network Connectivity

Wireless Upgrade

- Activities
 - Implement new controller architecture
 - Convert existing access points to new controllers architecture
 - Pilot then deploy WPA2
 - Pilot and deploy wireless network admission control with guest registration
- Functionality
 - Establishes a modern, controller-based wireless environment
 - Enhanced manageability, performance and security
 - Ability to support roaming between wireless subnets, allowing mobile applications to maintain connections as one moves between buildings
 - Add WPA2 security, eliminating the need to use VPN for wireless
 - Provides ability to limit access to the certain parts of the network by user
 - Provides ability to assure that user systems meet minimum standards prior to connecting to the network
- Equipment Changes or Additions
 - New central wireless controllers and location servers
 - New NAC appliances for wireless

802.11n Upgrade

- **Activities**
 - Conduct Crawford pilot with new controllers and access points
 - Conduct NRV pilot using equipment to be deployed campus-wide
 - Roll out throughout the University along with access layer updates
- **Functionality**
 - Supports the new 802.11n standard (which is backwards compatible)
- **Equipment Changes or Additions**
 - Replace wireless access points/supporting modules campus-wide

Core, Access, and Distribution Upgrade

- Activities
 - Replace core layer
 - Replace distribution layer
 - Upgrade access layer
- Functionality
 - Enhanced performance with 10 Gbps between access and distribution (currently 1 Gbps), and eventually 100 Gbps in distribution and core (currently 10 Gbps)
 - Replaces obsolete CatOS with IOS in access layer switches
 - Supports new modules required for wireless upgrade
 - Ability to monitor traffic and protocols (cannot do this with current system) resulting in improved security
- Equipment Changes or Additions
 - New distribution layer switches/modules
 - Replace supervisor engines/OS software on all access layer switches
 - Replace modules which support wireless and VoIP phones

Unified Communications Upgrade

- **Activities**
 - Implement presence system
 - Install Unity Connection unified messaging system
 - Deploy Personal Communicator software
 - Upgrade Unified Communications Manager to version 6
- **Functionality**
 - Improved security and reliability of the voice system
 - Enhanced collaboration tools
 - Improved integration between UM and VoIP system
 - Improved support for mobile integration
- **Equipment Changes or Additions**
 - New servers and appliances added to support additional functionality

Mobile Support

- Activity
 - Install mobility support systems
- Functionality
 - Integrates mobile phones into the VoIP and unified messaging system
 - Gives users more control of how they interact with callers
 - Provides for a single number to reach multiple devices
 - Move an ongoing call between a mobile device and an office phone
- Equipment Changes or Additions
 - Add convergence servers, mobility appliance, multiservice router and voice gateway

Video/Audio Conferencing

- Activity
 - Rollout Adobe Connect
 - Select and deploy Audio bridge capability
 - Deploy Cisco Unified Telepresence video conferencing systems
- Functionality
 - Ability to hold video/audio conferences with ease
 - Virtual, cross-table, face-to-face meetings with Telepresence
- Equipment Changes or Additions
 - Audio bridge capabilities could be outsourced or added to Unified Communications Manager
 - Telepresence equipment (displays, cameras, audio, video, communications)
 - Physical room changes to support Telepresence

IPv6

- Activities
 - IPv6 sandbox
 - IPv6 rollout to the enterprise
- Functionality
 - Support IPv6 protocols simultaneously with the current IPv4 protocols allows gradual adoption of new protocols and removal of old protocols
- Equipment Changes or Additions
 - Software module added to switch software and configuration

Security Monitoring

- Activity
 - Upgrade MARS service
 - Implement IDS (intrusion detection system) at the network edge
 - Install data center NAC
 - Enable protocol and traffic monitoring at the access layer
- Functionality
 - Improved ability to monitor traffic patterns for illicit activity
 - Head off threats before serious incidents occur
 - Ability to collect log information from more devices
- Equipment
 - Upgrade and add MARS appliances
 - Upgraded supervisor modules in the access layer (part of the access layer upgrades)

Residential Network

- **Activities**
 - Separate the residence halls network logically from the campus network
- **Functionality**
 - Separates residential network traffic from academic and administrative network traffic
 - Residential network is logically “off-campus”
 - Improves network security and reliability
 - Allows for separate network administration and policies
- **Equipment Changes or Additions**
 - Reconfiguration only, no hardware changes or additions required