THE GEORGE WASHINGTON UNIVERSITY
Washington, D.C.

MINUTES OF THE REGULAR MEETING
OF THE FACULTY SENATE HELD ON
MARCH 11, 2005 IN THE MARVIN CENTER, ROOM 310

Present:  Vice President Lehman and Parliamentarian Pagel; Deans Futrell, and Tong; Professors Biles, Briscoe, Englander, Gallo, Garris, Gupta, Marotta, Mueller, Robin, Robinson, Shen, Simon, Vergara, Wilmarth, and Wirtz

Absent:  Deans Frawley, Harding, Katz, Phillips, Scott, Trangsrud and Whitaker; Professors Castleberry, Cordes, Delaney, Friedenthal, Granger, Griffith, Helgert, Klarén, Lee, Packer, Shambaugh, and Watson

The meeting was called to order by Executive Vice President for Academic Affairs Donald R. Lehman at 2:17 p.m.

APPROVAL OF THE MINUTES

Upon motion made and seconded, the minutes of the regular meeting of February 11, 2005 were approved as distributed.

CHANGE IN THE ORDER OF THE AGENDA

Professor Wilmarth moved that the order of the agenda be changed so that consideration of Resolution 04/9 could take place following the Update on Academic Information Technology Security, the Report on the School of Engineering and Applied Science, and Remarks by the Vice President for Advancement. The motion was seconded and passed.

UPDATE ON ACADEMIC INFORMATION TECHNOLOGY SECURITY

Dr. David G. Swartz, GW’s Chief Information Officer thanked the Senate for the opportunity to present an update, and he distributed a report on GW Information Security: Services and Initiatives prior to the presentation. (The Report is attached.)

Dr. Swartz began by saying that the purpose of the update was not only to raise the faculty’s awareness about Academic Information Technology Security, but also to request faculty assistance in implementing measures to enhance it.

According to Dr. Swartz, inroads on computer systems made by hackers (those attempting to compromise technology security) are widely reported in newspapers and other media, often on a daily basis. Whether the target is an educational institution (George Mason University recently experienced a serious incident), a commercial firm, such as ChoicePoint, or an individual, the dangers of identity theft and compromised technology are ever-present and growing. Dr. Swartz reported his own recent experience with the Bank of
America, which notified him that a security breach required them to cancel his accounts and reissue them, a process which took several days and could have caused severe hardship.

The bad news is that, on the GW campus, the number of hacking attempts is growing exponentially. Every year, it gets worse because the Internet grows into other parts of the world where there are more and more creative minds with smaller and smaller incomes who view this as a way of making money. This is no longer an activity where the idea is to be clever and secure bragging rights; very creative people, now driven by capitalism, view this as a means of harvesting either information or money. Dr. Swartz added that this harvesting activity can work both ways, as the Bank of America sought to charge him $5 for the privilege of restoring his accounts.

The good news is that the number of “successful hacks” and compromised boxes (computers, desktop computers, or servers) is fewer than before, thanks in large part to security measures now in place.

Another area of potential vulnerability is keeping track of confidential data in GW’s technology universe. It is important to accurately identify and locate where this data is stored or accessed, and to audit and ensure that adequate security measures are in place to protect it. Dr. Swartz then introduced Guy L. Jones (M.S.S.M.), Chief Technology Officer at the University.

Mr. Jones began by outlining the most common sorts of attempts to compromise technology security. These include the creation and dissemination of what are termed viruses and Trojans, which infect boxes and ultimately compromise their systems and networks. While the Information Technology (IT) Office used to log the number of these attacks, this became impossible once the number increased into the millions, so at this point IT keeps track of the number of compromised boxes, or successful attacks.

Mr. Jones reported that most users are not aware that these attacks can and are being directed not only at boxes and networks, but at resident programs such as Microsoft Office and Word. Printers and fax machines can also be affected, and the day is coming when a user’s cell phone will be targeted to spread malicious programs to a box or network, and vice versa.

Despite this bleak picture, there are tools to stop this sort of havoc, and IT offers a number of security options to the University community. These include:

Antivirus Protection - available at no cost, as the University has obtained a site license to distribute Symantec Antivirus to the University community.

Firewalls: While use of a personal firewall is strongly recommended and a free one is included with Microsoft Windows, an alternative Symantec product, available at no cost for download from the University HelpDesk provides better protection. While Microsoft's product is user-friendly, it is not as effective as the Symantec product which, when installed, inactivates the Microsoft personal firewall. The firewall acts something like a blast shield, in that when a box is hacked, the compromised computer tries to initiate outgoing activity (such as harvesting data from a box or a network). A personal firewall
detects this outward-bound activity and pops up a flag that tells the user, often in convoluted code, that his/her computer is trying to perform a task, and asks if the user wants to do it. Unless the activity is initiated (and understood) by the user, the answer should be no.

**User Awareness:** This is an absolutely essential component of secure technology. IT provides information through a number of channels, including fairs, written communications, and hands-on training for local support partners.

**Spyware:** These programs, while not required, are useful to detect the presence of “bugs” and other malicious programs. Some of these are designed to attach to “cookies” so that when a user accesses a website, the semi-legitimate cookies, (which are used to track a user's visit to the site) are tagged to carry back to the user's box malicious information. Another form of mischief detected by spyware is when (for example) a weather map or clock for the desktop is downloaded from the Internet, which then loads malicious information on the receiving box. Sometimes so much is loaded which runs in the background of legitimate systems operating on the box that some older systems can actually be brought to a screeching halt. Two recommended free spyware products are available for download from the Internet: AdAware, or SpyBot.

**Patchlink:** Available free on any Windows product, and highly recommended, Patchlink checks to make sure that operating and software system patches, and antivirus protection are current on boxes. Patchlink is a server which keeps a database of all the known patches of software, and it uses a software agent to push (or download patches) onto a user's system automatically. Gelman Library has reduced the number of compromised boxes by adopting this system.

**Automatic Update:** As its name implies, this can be turned on by the user, or this can be connected to an automated pushing system, a feature available on Patchlink.

Professor Englander asked if an Email could be sent to all faculty setting forth an organized checklist of these measures. It would be helpful, he added, if such communications could list requirements or recommendations individually, rather than just advising users to go to the IT Security page. Mr. Jones responded that security Emails have been sent, but he would see that another is forthcoming with all of the hyperlinks. A training program is also being rolled out now for all incoming staff.

Professor Robin said he thought in general that the Helpdesk Help Pages are pretty helpful, but it requires a lot of navigation for users to find what they are after. For example, in looking at the firewalls entry, the first information concerns the Windows native firewall, but users have to navigate further to get more comprehensive information. Each page is clearly written, but there is no priority of information. Mr. Jones thanked Professor Robin for this observation and said he would take this point under advisement. It is always helpful, he added, to receive suggestions for improvement in the information promulgated.

Professor Wirtz said he agreed that security issues were serious and need to be addressed. However, the concept of having a program run on a faculty member's machine which monitors that machine and then pushes down software automatically poses a
potential conflict with the provisions of Article II. of the Faculty Code if this is done without a faculty member's active consent to such monitoring. [Article II provides that, "A faculty member shall enjoy freedom of investigation subject only to legal restrictions and such guidelines as shall be recommended by the Faculty Senate and adopted by the University."]

Professor Wirtz then asked what provisions are in place to ensure that the faculty can be involved before the decision to place this software on the individual's machine is made, and will there be a provision by which an individual faculty member will have an opportunity to opt out (not opt into) any plans to implement these sorts of programs before they are put in place.

Mr. Jones said that ISS shares these same concerns, as within this shop there are technically-oriented users who do not want anything pushed down because it could break their operating systems. Thus the plan within ISS is to have tiers in which some users are pushed, and others are not. While still in the proof of concept stage, this model should work well with departments and Patchlink will not be extended outward without someone [such as a local support partner (LSP)] designated to support it.

Professor Wirtz said he did not know if everyone in the room understands who the LSP's are, but these are school-based administrative structures which implement technology within the Schools. He then asked if it was the case that under no condition would anything be pushed to or installed on any faculty member's machine without that faculty member's explicit concurrence, and secondly how is it that the faculty will become involved, as required, in this decision if it is made by the LSP's.

Mr. Jones responded that there are no plans right now to push anything to anybody against their will, and that he was open to suggestions concerning the role of the LSP's. He added that he was open to suggestion on ways to improve faculty involvement in decisions about academic technology security, and as discussed with the Senate Executive Committee, one way to do this might be to include Senate Members on the Research and Information Technology Committee (RITC).

Professor Gupta said that some faculty are concerned that technology pushed to faculty desktops might be used to harvest information and send it elsewhere. Mr. Jones said that technically, the software now will not do that, but viruses and Trojans attempt to accomplish this, and may eventually morph into something that can function in this way.

Professor Wilmarth noted that the Senate Executive Committee had discussed some of these issues with Dr. Swartz and Mr. Jones, and it was the view of the Executive Committee that one of the Standing Committees of the Senate should investigate how best a faculty-administrative partnership can be constructed to consider academic technology issues.

Mr. Jones concluded his presentation by summarizing his main points: that the computing environment is getting worse and these problems are becoming more visible, particularly to Congress; thus it is likely that regulations will in future require the University to take specific measures to protect the information it has. At present, ISS can provide advice, tools, training, and support. It is important to note also that there is no defense
against some of these new problems except awareness and reporting on the part of the user, which are important goals not only for ISS but the University community as a whole.

REPORT ON THE SCHOOL OF ENGINEERING AND APPLIED SCIENCE

Vice President Lehman welcomed Dean Timothy W. Tong by saying that his report would be the fourth in a series of Dean's reports presented to the Senate which had previously been made to the Board of Trustees last summer. Dean Tong's report, like the other Dean's reports, focuses on strategic directions for the School of Engineering and Applied Science (SEAS) and describes development initiatives and priorities.

Dean Tong thanked the Senate for the opportunity to make his report and he distributed a copy of his PowerPoint presentation. He began by outlining a snapshot covering the period Fall, 2000 through Fall, 2004, which included information on the School's undergraduate and graduate enrollment, faculty, research and sponsored activities, and advancement efforts. The snapshot also outlined near-term goals for the School.

Dean Tong reported that the goal of achieving an undergraduate enrollment of 700 (an increase of 225 students) was shared by everyone in SEAS, but achieving these numbers would be a challenge even with the very close working relationship SEAS has achieved with the Admissions Office. The School has seen quite a bit of progress in increasing graduate enrollment, and this is due in large part to faculty who brought more funded research to the University, which allowed the School to hire more graduate research assistants. Faculty have also been successful in launching new off-campus programs. As an example, Dean Tong said that the School has established a Master's of Science degree program in Taiwan, and at this moment, SEAS has more Taiwanese students in that country than it does at the Foggy Bottom campus.

In terms of faculty positions, SEAS is on track to achieve its near-term goal of 100 faculty, and has increased the number of faculty positions by 17. During the reporting period, SEAS faculty has more than doubled the School's research expenditure, and Dean Tong said he thought the faculty deserve a lot of recognition for this achievement.

In the Advancement area, SEAS exceeded its originally modest goal of raising $20 million in 2004 when $43 million was raised.

Looking forward, Dean Tong described the School's Strategic Plan, which with Professor Garris's leadership, won faculty approval in December 2002 by an overwhelming majority. The School's vision is ultimately to become one of the top 50 engineering schools. This will be a challenge, as the School's undergraduate programs are presently unranked and the graduate programs are ranked at 83rd. However, in terms of research funding, SEAS makes a strong showing and is among the top 50 schools nationwide in this category.

SEAS has made strategic investments in Selective Academic Excellence in three areas: Transportation, Safety and Security; Information Technology and Telecommunications; and Biomedical Engineering. Despite the recent setback at the Virginia campus in the Transportation area, strength in this area remains deep, and the
School has particular expertise, particularly in the area of automotive safety. Dean Tong said that although the Information Technology industry has suffered in recent years, he is convinced that this area will come back very strongly. In the area of Biomedical Engineering, the School is well-positioned with specific collaborations with colleagues in the Medical School, and a terrific new Hospital.

Dean Tong then described Advancement priorities for SEAS. In order to achieve its goals, the School needs funding. On average, nearly 5% of faculty at the top engineering schools in the nation are members of the National Academy of Engineering (NAE). In order to attract five NAE members to the School's faculty (which ultimately will number 100), it will be necessary for SEAS to establish an endowment of approximately $4 million for each endowed professorship it wishes to establish, and the total price tag for this initiative will amount to $20 million.

During the fall semester, 2004, SEAS recruited 117 freshmen, and this number will need to increase to 200 each year. Dean Tong noted that tuition at GW is already very high, and quite a number of engineering students come from middle income families. In order to attract more students, SEAS wishes to establish an additional 50 undergraduate merit scholarships which would contribute $20,000 toward each recipient's costs. The total required to establish this program would be approximately $20 million.

Finally, Dean Tong outlined the need for a new building for the Engineering School. The current facility is outdated, and the space for research is inadequate. While SEAS presently obtains twice as much in research funding as the allocated space would seem to allow, the School needs more space not only to maintain its high level of research expenditure, but to increase it. SEAS has managed over the years to achieve success in the research area because faculty are bright and committed, and the lack of adequate research space has tended to bend the direction of research toward the theoretical. Both theoretical and experimental research are necessary, noted Dean Tong, if the School is to achieve its goal of reaching the top 50.

Dean Tong concluded his report by saying the School has an excellent and very hardworking Advancement staff, and he expressed confidence that the School can achieve its goals. He added that he was looking forward to working very closely with the University's new Vice President for Advancement, Laurel Price Jones. (The Report is attached.)

Professor Mueller remarked upon the impressive increase in faculty from 2000 to 2004, on the order of 25%, and he asked where the money had been obtained to achieve this. He also asked what the percentage of tenure-accruing and tenured faculty was, as compared to the number of contract faculty in the School. Dean Tong responded that all 92 of the faculty referenced in his report are in the former category, and the school has roughly 100 contract faculty. While most of the funding for these positions was derived from reallocation of existing resources, Dean Tong said that the Executive Vice President for Academic Affairs had also provided funding for this purpose. Vice President Lehman noted that before Dean Tong came to the University, there were very severe cutbacks in the number of positions in the Engineering School following a very thorough review at the Board of Trustees level. While the tenure lines present in the school at that time were never
taken away, they were left vacant, and all of the tenure lines that have been filled since Dean Tong came to GW already existed and were not new. Because of the School's reorganization, reallocation of resources, and the productivity of its faculty, Vice President Lehman said that Dean Tong was given permission to refill those vacant tenure lines. Funding that was given to the School to fill some of the vacant lines came through the Signature program in the Strategic Plan for Academic Excellence. Dean Tong noted that, in connection with some of these reallocations, staff in the School is quite thin, and one of the associate dean positions has not been filled since his arrival, as funding for this purpose was used to fund a faculty position.

Professor Briscoe asked the Dean to comment on plans to continue or increase activity at the Virginia campus. Dean Tong noted that two kinds of programs exist at this campus, open enrollment, and cohort programs. While cohort programs are doing well, SEAS is working toward launching a more effective marketing campaign to increase the number of students in the open enrollment category.

While the University has decided not to build a new crash test facility, SEAS faculty are still highly regarded in the field, and they will expand their efforts in state-of-the-art computer simulation. A search for a new director for the National Crash Analysis Center is underway. In addition, the School's Shift Table is now fully operational, and GW is pursuing joint research opportunities with the University of Maryland.

Professor Briscoe asked if Dean Tong was aware that Loudoun County is now becoming a Biotech corridor. Dean Tong responded that as of now, the School does not have a Biomedical Engineering program at the Virginia campus, but effort in this area could be stepped up if funding becomes available.

As one who has watched the remarkable transformation of the Engineering School in recent years, Professor Robinson said she thought that the Dean and the faculty have done an incredible job. She noted that undergraduate recruitment for the School has always been difficult, and she asked how much of the recruiting takes place at the School level and how much is conducted by the University's Admissions Office. She also asked how more faculty involvement in recruiting could be achieved. Dean Tong responded that while the Admissions Office conducts the vast majority of recruitment activities for the School, faculty are becoming more involved in these activities which include open houses and recruiting travel.

REMARKS BY VICE PRESIDENT FOR ADVANCEMENT LAUREL PRICE JONES

Vice President Lehman introduced the University's new Vice President for Advancement, Laurel Price Jones, who comes to GW from Rochester Institute of Technology (R.I.T.) in New York. Vice President Price Jones also was employed in fundraising at University Hospitals of Cleveland, associated with Case Western Reserve in Ohio.

Vice President Price Jones thanked the Senate for the opportunity to address the faculty. Although she said she had been at GW only a few weeks, that had been enough time to begin to see where the focus of Advancement efforts should be directed. She noted
that Advancement encompasses not only fundraising, but Alumni Relations as well, as these areas are directly related.

In terms of its fundraising over the past twenty years, Vice President Price Jones said, it is surprising that the University has not secured a gift, or several gifts, of $10 million or more. Given the size and stature of GW, it is time for the University to achieve that level of commitment, as gifts of that size have an impact not only on what the University can do, but upon its self-image and the image it projects to the community, which encourages potential donors to consider a higher level of giving. Vice President Price Jones added that, therefore, her first focus would be upon opening conversations with potential donors and finding that first eight-figure commitment. It takes about the same amount of time and effort to secure one of these large gifts as it does a smaller one, she noted.

The second focus for Advancement efforts will be the development of Planned Giving arrangements, which include the designation of GW as a recipient of gifts in wills or trusts, the creation and use of charitable gift annuities, and other vehicles which will secure funds and deferred gifts. While these efforts will probably not produce gifts in the near future, they will pay off five to fifteen years from now at which point the wisdom of pursuing these types of donations will be obvious.

Thirdly, Advancement will focus on streamlining fundraising through GW’s Annual Fund, to which all alumni and friends of the University are asked each year to contribute. GW’s ranking in US News and World Report depends in part (a very small part – approximately 5%) on the participation of graduates who earned their bachelor’s degrees at GW in this activity. At present the participation rate is 12%, and this rate has steadily declined in the past five years to that level from 20% in FY 2000. While a reduced level of participation over the past 10 years in this sort of philanthropic activity has declined nationwide, GW’s participation rate is much lower than that of its competitors.

Vice President Price Jones commented upon the need for GW to take a high-level look at our sources of corporate donations and the Advancement Office plans to hire a staff member who will work solely on leveraging to a higher level all of the University’s corporate relationships.

Finally, Advancement will be investing in development of the alumni database, as GW can only locate some 70% of its graduates. That number, she added, should be more like 90%. This effort will obviously impact the Annual Fund campaign.

Vice President Price Jones spoke very highly of the staff in Advancement and Alumni Relations who have continued their work during a period in which leadership has changed several times. She then gave an overview of fundraising at GW over the last 5 years. Over this period of time, on average, the amount of cash raised each year has been approximately $50 million; pledges have totaled $26 million, and deferred gifts $8 million. This year to date, despite transitional leadership, nearly $34 million in cash has been raised, with $11 million in pledges and deferred gifts of $2 million.
In terms of fundraising goals, Vice President Jones said that a report written two to three years ago setting these goals pegged the goal for FY 2005 at $75 million, although it is unclear what would make this 50% increase in funds raised a reality.

Vice President Price Jones then reviewed the sources in four categories of support for GW, with alumni giving on average 22% percent of funds raised, others such as interested individuals and friends, 11%, foundations, 45%, and corporations, 11%. While nationally alumni contribute an average of 28% of funds raised, GW's fundraising from this source could use improvement but is not wildly out of line. In the category of "others" the national average is 21%. In the area of foundation support, GW's average is some 20 percentage points higher than the national average, and in the area of corporate support, GW is 9% below the national average.

Vice President Price Jones concluded by saying that overall, fundraising efforts will concentrate on working with corporations and individuals, with the latter effort aimed at achieving the 20% percent participation rate in place five years ago. She then offered to entertain questions.

Professor Wirtz asked if the problem in the participation rate is that GW is not contacting individuals, or that perhaps potential donors are sending the University a message by their lack of participation in fundraising campaigns, and he asked if there is a mechanism in place to find out why alumni do not give. Vice President Price Jones responded that an annual survey will be instituted which will seek answers from a sample of alumni on this very question. She said that when this was done at R.I.T., they found that alumni thought R.I.T. was a great place that they would recommend, but when asked how important they thought fundraising was for the institution, it became clear that their low participation rate of 8% was due in large part to the fact that they just did not understand why R.I.T. needed money. Another initiative which will hopefully raise the participation rate is developing a program through Alumni Relations which will encourage students preparing to leave the University to think of themselves as alumni who will return to participate in and contribute to University life.

Professor Gallo asked if the participation rate at R.I.T. had increased while Vice President Price Jones was there, and the Vice President responded that it had increased from 8 to 12%.

Professor Wilmarth noted that tuition has gone up considerably in the last five years, and asked if the decline in Annual Fund participation was a reaction to this development. Vice President Price Jones said she thought that it was a bit early for fundraising tallies to reflect an effect like this with alumni from this group which had departed so recently.

Professor Simon noted that it appeared that since the year 2000 there have been no new donors, and suggested that the University find out why these individuals chose not to give when asked. Vice President Price Jones agreed that there are probably many reasons for this which the University needs to discover. While the total amount of money given by regular donors may be relatively small and the costs associated with this sort of fundraising rather high compared to other sorts of campaigns, it is important to continue an outreach
effort to individuals who self-identify as donors and may be ready to make a larger, or deferred donation to GW.

RESOLUTIONS

RESOLUTION (04/9), “A RESOLUTION FOR THE APPROPRIATE REGULATION OF HONORS, AWARDS, OR DISTINCTIONS BY UNITS OF THE UNIVERSITY”

On behalf of the Senate Committee on Honors and Academic Convocations, Professor Barry L. Berman, Acting Chair, introduced Resolution 04/9, and he thanked in particular the University Marshal, Jill Kasle, and Professor Walter K. Kahn for their help in constructing the Resolution.

Professor Berman briefly reviewed the history of the Committee’s deliberations on the Resolution, which was prompted by an inquiry from Associate Vice President Jean Folkerts concerning awards being made in GW’s name by sub-units of the University. It was the consensus of the Committee that departments, or sub-units of Schools, institutes, centers, or individual faculty should not be authorized to confer such awards to persons outside the community of GW students, faculty, and staff, although these units could well suggest or initiate a process to be formulated by each School for conferring such awards. Following that procedure, Schools of the University (not including schools within schools) should be authorized to confer such awards subject to some authorized University process. The Committee also agreed that the sort of process already in place to review honorary degrees would be more or less appropriate for this kind of award as well. Professor Berman pointed out that the appendix to Resolution 04/9 sets forth the Committee’s proposed guidelines for evaluating the propriety of such awards.

Professor Gupta said he thought that the provisions of Resolution 04/9 would apply to awards conferred upon persons outside the University, but the Resolution itself does not specify that, and he asked if the proposed procedures would apply to departments giving awards to undergraduate and graduate students, as the Mathematics department presently does. Professor Wirtz made the same observation, i.e., that the Resolution did not make this clear, and said he had the same question in mind. Professor Berman said the intent was that the proposal should concern awards made to persons outside the community of GW students, faculty, and staff. Professor Wilmarth suggested an amendment to the first Whereas Clause which would clarify this point, which was accepted as a friendly amendment by Professor Berman. Discussion followed between Professors Wilmarth, Gupta, and Engleander on this point.

Professor Simon asked that the definition of the GW community be further refined, as the School of Medicine and Health Sciences confers awards to individuals who do not hold faculty appointments, for example, individuals who conduct medical rounds at Holy Cross Hospital. Discussion followed between Professors Berman, Gupta, Simon, and Vice President Lehman about awards to individuals outside of the defined community who have a relationship to the University. Professor Wirtz suggested that the definition of community
in the Resolution might be amended to include attending physicians, but this suggestion was not adopted and prompted further discussion.

Professor Garris brought up the Engineering faculty’s practice of attending and judging high school science fairs, and the practice of giving to participants a certificate from the University for such participation. Further discussion followed by Professors Garris, Wilmarth, Berman, Wirtz, and Mueller on such practices. Professors Berman, Wilmarth and Wirtz expressed serious reservations about awards with the imprimatur of the University being conferred when the University had not assumed a formal role in this process. Professor Englander and Professor Simon then discussed a procedure whereby such awards might be vetted in principle by the Honors and Convocations Committee, with an authorization covering a class of such awards issued for same.

Vice President Lehman asked Professor Wilmarth to restate his proposed amendments to the Resolution. Professor Wilmarth moved that in the first Whereas Clause after the words “George Washington University” on the second line the words “that is made to a person outside the community of GW students, faculty, and staff” be inserted, followed by the phrase “continue to deserve.”

In the first Resolving Clause, Professor Wilmarth moved that immediately following the word, “that,” the phrase “with respect to persons outside the community of GW students, faculty, and staff” be inserted before the phrase “only Schools of the University.”

In the second Resolving Clause, Professor Wilmarth moved that the word “such” be inserted between the phrase “that nominees for” and “school awards.”

Professor Wilmarth then also suggested the Resolution might perhaps be amended to make clear that the process for these awards was a collaborative one which might involve consultation with a School’s Dean.

Professor Briscoe asked if alumni were included in the definition of GW community, and Professor Wilmarth responded that they were not.

Professor Wilmarth’s motion as stated was seconded. Further discussion followed at some length between Professors Englander, Berman, Simon, Wirtz, and Vice President Lehman. Following this discussion a motion to refer the Resolution back to Committee for further consideration of the suggested amendments was made and seconded. The question was called on the motion, a vote was taken, and the motion passed.

INTRODUCTION OF RESOLUTIONS

No resolutions were introduced.
GENERAL BUSINESS

I. NOMINATION FOR ELECTION OF MEMBERS OF THE NOMINATING COMMITTEE FOR THE EXECUTIVE COMMITTEE FOR THE 2005-06 SESSION

Professor Wilmarth moved the nominations of the following faculty members for election to the Nominating Committee: Professor Philip W. Wirtz (SB), Convener; Professors William J. Briscoe (CCAS), Kurt J. Darr (SPHHS), Linda L. Gallo (SMHS), Peter F. Klárén (ESIA), Sylvia A. Marotta (GSEHD), Walter K. Kahn (SEAS), and Arthur E. Wilmarth, Jr. (GWLS). The slate of nominees was approved.

II. REPORT OF THE EXECUTIVE COMMITTEE

Professor Wilmarth presented the Report of the Executive Committee, which is enclosed.

BRIEF STATEMENTS (AND QUESTIONS)

Professor Englander asked Vice President Lehman if there was any news on the effort to unionize part-time faculty at the University. Vice President Lehman responded that thus far the eagerly anticipated decision of the Administrative Law Judge in this matter has not been received by the University.

Professor Wilmarth advised the Senate that Executive Vice President and Treasurer Louis H. Katz and one of his associates would attend the Executive Committee meeting on March 25 to give an update on planning for the development of Square 54 (the old GW Hospital site). He added that if there is important information coming out of that update, the Executive Committee would encourage Vice President Katz to share this information with the Faculty Senate at its meeting on April 8.

ADJOURNMENT

There being no further business before the Senate, a motion to adjourn was made and seconded. The meeting was adjourned at 4:43 p.m.

Elizabeth A. Amundson
Elizabeth A. Amundson
Secretary
GW Information Security: Services and Initiatives

Summary
While Information Systems and Services (ISS) has gone to great lengths to protect information stored in and transmitted to and from its major systems (e.g., Banner, Enterprise Accounting System, GWMail), risks of unauthorized access to other GW systems, and to information stored on paper, remain high. Security breaches at other higher education institutions—most recently at George Mason University, where a hacker accessed Social Security Numbers on a department-maintained server—illustrate the risks of identity theft, invasion of privacy, and data tampering when information is not secured.

This document discusses the need for protections of University data, and describes currently available services as well as projects underway to ensure maximum protection of information.

Background

Importance of Protecting University Data
Security breaches at higher education institutions have intensified concern about information security—concerns of parents, students, federal entities and employees. In the mid-Atlantic, the most recent event occurred at George Mason University, where an insufficiently secured server was compromised. ISS records show a continuously increasing frequency of intrusion attempts, and increasing sophistication of those attempts.

At any point in time, GW departments' essential information is located in several places:
- on paper
- on desktops
- on servers maintained in the ISS Data Centers
- on servers maintained by GW departments
- on the GW network, transmitted between desktop and server, or between servers

For unsecured information, whether stored electronically or on paper, the risks we incur from unsecured information include:
- violation of individual privacy
- identity theft
- corruption of GW data
- disruption of automated processes that sustain the University's operations

Because our data are located in a variety of locations and media, protecting them requires that security measures be applied to paper, desktop computers, servers, and the network. Furthermore, since data are owned, stored, and used by all GW departments and community members, all departments have responsibility for protecting those data.

Relevant Policies
The GW Data Classification Policy, approved by University Vice Presidents in Fall 2004, acknowledges and emphasizes the cross-University responsibility for protecting data. The policy also provides definitions for categories of information—Public, Official Use Only, and Confidential—and provides guidelines for protecting these different categories.
The Information Security Policy, approved in Spring 2004, provides information on security requirements. The policy states that systems—including desktop computers—should be kept patched and protected from viruses. The policy also strongly recommends usage of personal firewalls.

For systems that contain confidential and/or sensitive information (e.g., social security numbers, academic records), the Information Security Policy states that encryption technology and other enhanced security measures should be applied. The types of protections depend to some extent on the system's technology underpinnings and the types of information maintained. ISS has a project underway to secure department-maintained servers (see Server Information Security Project, below). Also, ISS is available to advise departments on securing servers and desktops.

**Related Services and Projects**

**Services Currently Available to the GW Community**

Generally, software vendors provide operating system patches and software patches at no charge for licensed users and valid operating systems.

ISS currently offers the following services and products to support compliance with information protection policies:

- **Antivirus software**: GW has a site license for Symantec Antivirus, available at no charge to GW community members.

- **Desktop firewall**: Use of personal firewalls on desktops is strongly recommended. GW has a site license for a Symantec product, available at no charge to the GW community.

- **Extra security mechanisms for wireless computing**: ISS requires and provides “virtual private network” technology to encrypt wireless transmissions.

- **Security Toolkit**: ISS has published a manual for server administrators, which offers specific process and a documentation template for securing department-maintained servers.

**Projects Underway to Enhance Information Protection**

ISS is conducting several projects to improve protection of GW information from unauthorized access, tampering and theft. Several of these efforts will feature additional products to incorporate into community members' desktop technology configurations.

**Patchlink**

Patchlink is a software product that monitors and reports currency of a system's operating system patches, software patches, and antivirus protection. Gelman Library has installed this software on its desktops, and has seen a marked drop in the incidence of desktop viruses since the installation. ISS is now working with ResNet to evaluate Patchlink for student residents' machines, with the goal of being able to begin this program for students in residence halls in Fall 2005.

ISS plans for Patchlink to be available to other administrative and academic departments beginning in late summer or fall 2005. Deans and Department heads, in conjunction with their Local Support Partners (LSPs) will decide whether to use the product.
Cisco Clean Access Solution

"Clean Access" is a product that checks for existence of up-to-date antivirus protection and patches on a desktop before permitting it to connect to a network. ISS is working on configuring this product to incorporate the "intrusion protection" capabilities that are currently in place for wireless computing, thus enhancing desktops' protection against attacks originating from outside the University. Clean Access will require either a login or a desktop scan before permitting a desktop's connection to the GW network.

ISS will install Clean Access for students in residence halls in Fall 2005. Expansion of the project to other GW community members is pending approval of additional funding; if funding becomes available, deployment of Clean Access will be initiated upon request of a department.

SSN Protection Project

Social Security Number is the de facto identifier for individuals at many institutions, but it is also a key to a wealth of financial information and other confidential information about an individual. Recent instances of SSN theft at other institutions, increasing frequency of concerns expressed by parents and students, and increased federal attention on use of SSNs as identifiers ISS all indicate that GW must consider conversion to a non-SSN individual identifier for general use, restricting access to SSNs to those processes that explicitly require an SSN (e.g., financial aid and payroll processes).

ISS and Gelman Library are jointly conducting an analysis of current use of SSNs across GW departments, distinguishing those practices that must store and transmit SSN information. In early summer 2005, the project team will produce recommendations for the scope and schedule of a conversion to a non-SSN GW ID, as well as additional measures to secure SSN data.

Document Protection

The Office of the Executive Vice President & Treasurer is working with GW departments to identify and implement storage and disposal procedures for documents that contain confidential and "official use only" information, following guidelines stated in the Data Classification Policy. The project is in the information-gathering stage at this time.

Virtual Private Network (VPN) A Virtual Private Network is a technology that (1) helps ensure that only authorized GW community members access University servers on campus, and (2) provides a secured path for community members to access GW systems from remote (off campus). ISS is working with individual GW departments in turn to install VPN software, giving highest priority to departments that have staff who need to access enterprise systems (e.g., Banner, EAS) from remote locations.

Server Information Security Project

The goal of this project is to secure information on servers that are owned and maintained by GW departments and schools. ISS is currently in the process of contacting administrators of department- and school-owned servers, to assess the security protections and recommend and install corrective measures to ensure that confidential and/or official data are protected from outside access.
GWU Faculty Senate: Academic Advancement

Timothy W. Tong, Ph.D., Dean
(202) 994 6080
tong@gwu.edu

March 11, 2005

Snapshot

<table>
<thead>
<tr>
<th></th>
<th>Fall 2000</th>
<th>Fall 2004</th>
<th>NEAR TERM GOAL</th>
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<tr>
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<tr>
<td>Advancement</td>
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<td>$43M</td>
<td>$20M</td>
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Going Forward

- Strategic Plan - Passed by faculty in December 2002
- Vision - To become one of the top 50 engineering schools
- Reality check
  - US News and World Report
    Undergraduate – unranked
    Graduate – 83rd, research $ among top 50
    [Yale(40) at $22M, both Brown(50) and Notre Dame(50) at $16M]
  - National Research Council
    Mechanical, Electrical in 60+ positions

Strategies

- Selective Academic Excellence – Areas Identified, under development
- Recruit NAE caliber faculty – Five endowed professorships, $20M
- Provide 50 additional top merit undergraduate Scholarships – Increase scholarship endowment by $20M
- Build a new engineering building – Add 100,000 sq ft of space, $40M
Strategic Investments in Selective Academic Excellence

Critical Infrastructure in Information Technology (CS, ECE)

IT/Telecom

Biomed Engr

GW Institute for Biomed. Engr (CS, ECE, MAE, and SMHS)

Excellence in Transportation Safety and Security (CEE, MAE, EMSE)

Endowed Professorships

- Top 30 to 50 engineering schools have an average of about 5% of their faculty that belong to NAE
- Five NAE members among 100 professors in the School
- Cost - $200,000/yr payout requires an endowment of approximately $4M
- Five endowed professorships require $20M
Undergraduate Merit Scholarships

- 117 freshmen for fall, 2004
- Need to reach 200 freshmen each year
- Establish 50 additional top merit undergraduate scholarships to attract students
- Cost - $20,000/yr payout requires an endowment of approximately $0.4M
- 50 merit scholarships require $20M

New Engineering Building

- Current facility is outdated – Need modern facility to attract students
- Inadequate space for research – reach saturation when research expenditures reach $300 per sq ft of research space, at GW usage is $700/sq ft
- Combined education and research needs require additional space
- Cost – 100,000 sq ft @ $400/sq ft = $40M
Academic Advancement

<table>
<thead>
<tr>
<th>Gap</th>
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<tbody>
<tr>
<td>Endowed Professorships:</td>
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<td>Undergraduate Merit Scholarships:</td>
</tr>
<tr>
<td>New Engineering Building:</td>
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<tr>
<td>Graduate Fellowships:</td>
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</tbody>
</table>

Thank you very much!

Timothy W. Tong
Email: tong@gwu.edu
Tel: (202) 994 6080
School’s Website: www.seas.gwu.edu
REPORT OF THE EXECUTIVE COMMITTEE
Arthur E. Wilmarth, Jr., Chair
March 11, 2005

ACTIONS OF THE EXECUTIVE COMMITTEE

Joint Working Group to Prepare a Final Policy and Procedures on Sexual Harassment Complaints

This joint group held its first meeting on March 10. Further meetings are scheduled between March 21 and April 19. We are hopeful that a consensus document can be agreed upon and reviewed by the Senate Committee on Professional Ethics and Academic Freedom so that the Faculty Senate can act upon the consensus document at its meeting on May 13. The Board of Trustees has asked the Administration and the Faculty Senate to present a final policy and procedures for the Board's review at its upcoming meeting on May 19-21.

Joint Working Group on the Potential Advantages and Disadvantages of a 4x4 Undergraduate Curriculum

As previously reported, the Faculty Senate Executive Committee appointed Professors Edward Cherian, Robert Dunn, Roger Lang and Joseph Pelzman to serve on this joint working group in December 2004. The remainder of the joint working group has not yet been appointed by Executive Vice President Lehman, and the group therefore has not held any meetings. At its meeting in February, the Board of Trustees requested that the Administration present a report on the concept of a 4x4 undergraduate curriculum at the Board's meeting in October 2005. In a recent communication sent to Executive Vice President Lehman, the Executive Committee has stressed the importance of providing faculty representatives on the joint working group and the Faculty Senate with reasonable time to consider the potential merits and shortcomings of a 4x4 undergraduate curriculum, and to present their recommendations, before the Administration delivers any final report to the Board of Trustees. Executive Vice President Lehman has assured the Executive Committee that faculty representatives on the joint working group and the Faculty Senate will be given a reasonable time period to consider any 4x4 proposal and to present their recommendations regarding such a proposal.

University Faculty Club

The Executive Committee has suggested that the Administration publicize to the University community the University Faculty Club's decision to rescind its former membership and dues requirements and to allow University constituents to purchase meals at the Club by using cash or credit cards.

PERSONNEL MATTERS

I am pleased to report that no faculty grievances have been filed with the Dispute Resolution Committee since the date of my last report, and no faculty grievance is currently pending.
GENERAL ANNOUNCEMENTS

Please note that two items are being distributed to you today: (1) the Faculty Senate Report presented to the Academic Affairs Committee of the Board of Trustees at its meeting in February; and (2) the Special Report on FY 2005 Five-Year Operating and Capital Budgets prepared by the Fiscal Planning and Budgeting Committee, which was attached as an exhibit to the foregoing Faculty Senate Report to the Academic Affairs Committee.

APRIL SENATE MEETING

On March 25, 2005, the Executive Committee will meet to establish the agenda for the Faculty Senate's meeting on April 8. The Election of the Chair and Members of the Executive Committee for the 2005-06 session of the Senate will take place at the April 8 meeting. Please note that the annual photograph of the Senate will also be taken at the April 8 meeting. In addition, the Executive Committee will propose to the Senate a list of nominees for membership on the Dispute Resolution Committee and Administrative Committees.

If you wish to present resolutions, reports, or any other matters for consideration by the Senate on April 8, please submit them to Ms. Sue Campbell, Faculty Senate Coordinator, prior to March 25.

Respectfully submitted,

Arthur E. Wilmarth, Jr.
Professor of Law
Chair, Faculty Senate Executive Committee
The Faculty Senate

March 3, 2005

The Faculty Senate will meet on Friday, March 11, 2005, at 2:10 p.m., in the Marvin Center, Room 310.

AGENDA

1. Call to order

2. Approval of the minutes of the regular meeting of February 11, 2005, as distributed

3. Resolutions

   A RESOLUTION FOR THE APPROPRIATE REGULATION OF HONORS, AWARDS, OR DISTINCTIONS BY UNITS OF THE UNIVERSITY (04/9); Professor Barry L. Berman, Acting Chair, Honors and Academic Convocations Committee (Resolution 04/9 is attached)

4. Introduction of Resolutions

5. Update on Academic Technology Security: Chief Information Officer David W. Swartz and Chief Technology Officer Guy L. Jones (Information attached)

6. Report on the School of Engineering and Applied Science: Dean Timothy W. Tong

7. Remarks by Vice President for Advancement Laurel Price Jones

8. General Business:

   (a) Nominees for election to the Nominating Committee for the Executive Committee for the 2005-06 Session (nominees to be announced)

   (b) Report of the Executive Committee: Arthur E. Wilmarth, Jr., Chair

9. Brief Statements (and Questions)

10. Adjournment

   Elizabeth A. Amundson
   Elizabeth A. Amundson
   Secretary
A Resolution for the Appropriate Regulation of Honors, Awards, or Distinctions by Units of the University (04/9)

WHEREAS, it is of the first importance that any honor, award, or distinction linked with the name of The George Washington University continue to deserve the high regard of the entire academic community and the world at large; and

WHEREAS, it is essential therefore that such honor, award, or distinction be conferred with due deliberation on individuals or associations properly deserving of that honor, award, or distinction; and

WHEREAS, to that end it is desirable that in the conferral of such honor, award, or distinction a degree of uniformity in standards, criteria, and deliberation be maintained throughout the University; NOW, THEREFORE

BE IT RESOLVED BY THE FACULTY SENATE OF THE GEORGE WASHINGTON UNIVERSITY:

1) That only Schools of the University should be authorized to confer honors, awards, or distinctions (that is, not individual Departments or other academic subdivisions, Institutes, or Centers, or other components, including ‘schools within Schools’, although these could well suggest or initiate consideration of such), subject to some appropriate procedures to be established by and within each School for that purpose, such procedures to be approved by the Executive Vice President for Academic Affairs; and

2) that nominees for School awards should be vetted and approved by the Committee on Honors and Academic Convocations of the Faculty Senate on the basis of materials submitted in support of the honor to be conferred by the School, much as that Committee now vets nominations for the award of honorary degrees submitted by the various Schools.

Appendix: Guidelines for Conferral of Honors, Awards, or Distinctions

1) The awardee must have achieved distinction in his or her profession. “Distinction" can be measured in a variety of ways: winning significant prizes for professional or scholarly work; achieving national or international recognition for professional or scholarly work; or displaying the kind of professional or scholarly skills or abilities, character, and integrity that might cause the nominee to be considered to be a role model for students.

2) The awardee must have made the kind of contribution to his or her profession that has measurably enhanced or improved the profession. The awardee must have set a new standard for accomplishment, found new ways to deliver the benefits of the profession, or otherwise brought recognition to the profession.

3) A connection with GW and the School proposing the honor, award, or distinction would be an important positive factor.

Committee on Honors and Academic Convocations
Barry L. Berman, Acting Chair
February 16, 2005
March 1, 2005

To: GWU Faculty Senate Members
From: Arthur E. Wilmarth, Jr., Chair
GWU Faculty Senate Executive Committee
Re: GWU Information Security Policy

On Friday, February 25th, 2005, the Faculty Senate Executive Committee met with Mr. David Swartz, Chief Information Officer, and Mr. Guy Jones, Chief Technology Officer, in anticipation of Mr. Swartz's upcoming presentation to the full Senate on Friday, March 11th, 2005. The Executive Committee felt, and Mr. Swartz agreed, that sharing the following questions (posed by the Executive Committee) and answers (provided by Mr. Swartz) would be appropriate to inform the Senate about the underlying issues involving Information Security Policy.

(1) What generic types of computer programs are currently mandated on all academic machines under the University academic technology policy (...a copy of any such policy would be very helpful).

The security software requirements and recommendations can be found in the Information Security Policy. A copy can be accessed from:


For systems that contain confidential and/or sensitive information such as social security numbers, educational records, and credit card numbers as examples, encryption technology and enhanced security measures is required.

The Information Security Policy states that systems should be patched and anti-virus software used. Operating system patches and software patches are generally freely available from the manufacturer for valid operating system and software licensed users. The George Washington University has a site license for antivirus software (Symantec) that is freely available to faculty, students, and staff.

The Information Security Policy highly recommends the usage of personal firewalls but does not mandate the use of it. GW has a site license for Symantec AV Corp Edition 9.0.2 + Firewall 7.0.2 available from http://helpdesk.gwu.edu/software/download.html.

(2) How, and when, were the mandates cited in (1) approved by a representative, elected Faculty body and what is the relationship of that body to the Faculty Senate;

The Information Security Policy went into effect on April 21, 2004. The policy was reviewed by the ISS Policy committee, the AITC (Administrative Information Technology Committee) and the RITC (Research and Instructional Technology Committee). The document was also developed after significant discussions with departmental LSP representatives.

(3) Does current academic technology policy require specific vendors (e.g., *Semantec* antivirus checker) or does the policy prescribe only generic categories (e.g., "you must have a virus checker on your machine")

The Information Security Policy does not require specific vendors product.

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However, GW has a site license for anti-virus and personal firewall software that is available from the helpdesk website. It must be noted that ISS will only provide support to approved software listed under http://helpdesk.gwu.edu/software/support.html.

(4) Does the University have site licenses for *all* mandated software identified in (1), and if so, could you provide the *specific* URL to access and download that software

Yes, for the desktop. Desktop software is available at the ISS helpdesk website for download at http://helpdesk.gwu.edu/software/download.html. However, the Security Policy states that sensitive and/or confidential information must use encryption technologies and other safeguards beyond what is needed for the desktop. SSH and VPN clients (for wireless) is available to encrypt the transmission of sensitive and/or confidential information. Other measures are targeted toward the use of sensitive information on servers. These measures fall under best practice and vary for each type of computer platform. Desktops should not be used to provide open access to sensitive and/or confidential information. Use of a desktop as a server would require that it follow guidelines for server use to include having a designated system administrator.

(5) What procedures are in place, or are proposed, to ensure Faculty compliance with academic technology policy, and are these procedures fully consistent with the Faculty Code

Compliance with security recommendations at the desktop for the faculty is not monitored today. Instead we use Intrusion Detection and Prevention Systems to monitor malicious traffic such as worm and virus activities. Desktops that are compromised are referred to the local LSP for rebuild. If the identified desktop compromise is not corrected the desktop is removed from the network after one week.

There are two projects in place to ensure desktop compliance with the security policy.

Patchlink is currently being tested by ISS users to verify anti-virus software installation and operating system and software patch update level. This software has been successfully used by Gelman library staff to almost entirely eliminate their desktop virus/Trojan problem. ISS is now working with ResNet to deploy the Patchlink product to the student residents for the 2005 Fall semester. We are also working with departmental LSPs to provide this service later this summer or fall to the departments for voluntary use but our first priority is the student residence halls. Each LSP will determine whether to use Patchlink based on their needs and desires of their Deans/Department heads.

The Cisco Clean Access Solution Initiative is the second program that will be deployed to the student subnets this fall. Clean Access requires that a user either log into the network or have their desktop scanned prior to being allowed full access to the Internet.

By implementing these programs to verify that the security policies are implemented and are working effectively we can reduce the incidence of compromise of University desktops. Patchlink and Clean Access Scanning serve as the verification piece.

The Faculty Code states that "Faculty shall enjoy the freedom of investigation subject only to legal restrictions and guidelines as shall be recommended by the Faculty Senate, and adopted by the University".

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The University is required by regulation and board mandate to maintain an adequate level of security i.e. due diligence and due care to minimize negligence claims against the University due to crimes such as Identity Theft and the Invasion of Privacy from stolen information.

The implementation of the security technologies listed under question 1 and found in the Information Security Policy (Patches, Encryption, Antivirus software, personal firewalls (recommended)) are seen as a privacy enabler for students, staff, and faculty members. Without these security technologies, true privacy cannot exist as the desktop computers are left open to hacker attacks and intrusions.

(6) What generic types of computer programs beyond those currently mandated is ISS proposing to mandate on all academic machines

The Patchlink and Clean Access projects are targeted at the student residence halls this fall. Patchlink will be made available to academic departments for voluntary use this summer. Patchlink requires the participation of the department IT support group to identify users and provide administrative management.

(7) As a specific corollary to (6), is there (or is it contemplated that there will be) a proposal to place any kind of program (active or passive) on each Faculty member's computer to ensure compliance with academic technology policy

Patchlink and Clean Access will be available for expanded use in the future. It is envisioned that ISS will work with the academic or administrative departmental LSPs on which, if either, of these projects would be appropriate in their areas. The Patchlink solution in particular requires direct participation of the group providing desktop support. Clean Access has not been funded beyond the student subnets.

If the answer to (7) is yes:

(8) What is/are those proposed programs?

1. Patchlink on a department by department voluntary basis
2. Cisco Clean Access Solution. (unfunded)

(9) Under the proposal, what is their scope?

Student subnets will be covered by both projects this fall. Participation by other academic and administrative departments will be coordinated on a voluntary basis. ISS and Gelman Library are already using the Patchlink solution.

(10) Under the proposal, what is the timetable for implementation?

Patchlink Implementation:
| Gelman Library Staff and ISS Staff | 11/04 thru 5/05 |
| Students                          | 08/05 forward   |
| Departments on voluntary basis    | 05/05 forward   |

Clean Access:
| Student subnets                    | 08/05          |
| Other departmental subnets         | unfunded       |
(11) At what other universities has a proposal such as this been universally adopted and implemented with respect to the Faculty?

Approximately 140 higher education institutions have adopted the Cisco Clean Access Solution. We contacted a reference set of Universities to compare how they implemented their solution.

The normal implementation was for student subnets, wireless and public connections. The reference universities have not implemented a universally adopted solution with respect to Faculty. However, some universities listed are planning to include Faculty in future implementations and are beginning discussions with faculty.

Reference Universities:
- Stanford University
- Fordham University
- University of Mary Washington
- University of Cincinnati
- James Madison University
- Arizona State University

(12) Under the proposal, will the proposed resident program(s) be capable of making any changes to a Faculty member's machine without his/her knowledge and/or concurrence, and if so, what is the proposed scope of those changes?

Patchlink is capable of 'pushing' patches down to each desktop. The initial rollout to the student subnet will be set to monitor anti-virus and patch level. Gelman now 'pushes' patches to its system and ISS is using a mix of monitor and push depending on type of desktop.

Clean Access will also monitor the existence of anti-virus and patch level before allowing access to the network. There is an additional capability to allow access after logging in without scanning. Clean Access does not 'push' but can redirect the user to a website to download the required software.

(13) Under the proposal, would an individual Faculty member have the option of declining to have such a resident program operating on his/her machine, and if so, what would be the implications of opting to decline?

a.) The implementation of Patchlink will be dependant on the departmental LSP / management decision. Policies on use will be made by the department. Patchlink requires the direct participation of the desktop support group.

b.) Clean Access is currently not funded beyond the student subnets. If funding becomes available it is envisioned that the entire network will be covered. Clean Access has the ability to exclude individual systems and allowing network log-in for full Internet access.

(14) Under the proposal, in what way would the Faculty (as a group) actively participate to ensure that such any such resident program is limited to exactly, and only, the tasks consigned to it and approved by the Faculty?

The technical coordination of these projects rests with departmental LSPs. They have the knowledge of who and where the faculty are and what their needs and requirements are. ISS is striving to provide flexible solutions that can be used in partnership with the departments to provide cost effective protection.

Each of these solutions depends on the active participation of each department's IT support group to manage and deploy.