Compact for Office of Information Technology
FY2004

Introduction

The Office of Information Technology (OIT) continues to lead the University of Minnesota, higher education, and the technology industry by delivering, supporting, operating and maintaining the highest quality enterprise information technology services. Strategic technology decisions, a knack for timely innovation and development, friendly and efficient service delivery, and prudent operational support are signatures of this organization.

Changing technologies require a dynamic organization and flexible support structures. OIT continued internal realignments in FY03. These realignments are both proactive and reactive. Senior OIT management continually gauges the organization’s ‘readiness’ to meet tomorrow’s challenges in the midst of a changing external climate and institutional environment. The University’s state budget allocation and the President’s Service and Productivity Initiatives, in addition to a deliberate intention to ‘press on’ with Institutional technology initiatives, frame OIT’s organizational realignments. Leveraging existing infrastructure and maximizing return on previous investments are the dominant theme of this FY04 Compact between the Institution and OIT.

Today’s organizational structure features three core functional units buttressed by four support units:

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The action items in this compact document will be addressed and further developed in the context of this organizational structure.

The compact between the Executive Vice President and the Office of Information Technology for 2003-04 includes the following:

CUSTOMER SUPPORT AND SERVICE DELIVERY

Access to Electronic Information, Content and Services

OIT’s goal is to expand the pervasiveness of infrastructure technologies to enable anytime, anywhere access to electronic service, content and information.

Network Access

- **On-Campus Networking:** FY03 marked the beginning of a common good network-funding model. This change offers the benefits of reduced transactions, simplicity and self-service for customers. In anticipation of a Data Network Upgrade Project in FY04, personal interviews, a web-based survey, and other needs assessment activities will occur.

- **Wireless Networking:** In FY03 OIT introduced a modified ‘common/secure experience’ service aimed at leveraging collegiate investments in wireless technology. The new Coffman Union is the first building to have complete wireless coverage. The OIT web site provides a detailed map of all building and common spaces that have wireless coverage. In FY04, we will raise the awareness of security parameters and focus on a controlled strategic growth of wireless access.

- **Remote Network Access:** Strategic business partnerships, supplemented by OIT service offerings, have resulted in leveraging the current network access infrastructure and slowing the growth of dollars spent on campus networking. Worldwide dial-in access connects traveling or remotely stationed University students, staff and faculty to the Institution’s electronic resources. Supporting this remote access strategy is an enterprise virtual private networking (VPN) service.
To the modem pool. 920 customers are subscribed for this service, an increase of 31% from last year.

Local high-speed remote-access. More than 1400 students, faculty and staff have subscribed to cable modem or DSL services at discounted rates through OIT’s local service partners, an increase of 55% from last year.

Global Remote Access. Partnerships exist with AOL, UUNET and iPASS for international access. These services specialize in country-specific local dial-up Internet access (as opposed to a less reliable 800 number).

Computing Access

OIT effectively fills the student’s need for on-campus computing by strategically placing computer Kiosks throughout the campus, facilitating computer laptop rental programs, and operating computer labs.

- Coffman Memorial Union: FY03 focus was the new computing facility in the renovated Coffman Memorial Union. Again, OIT performed internal reallocations and leveraged its relationships with collegiate partners and central administration to provide superior computing access in this facility. This included receiving matching funding from CLA for wireless access and computer labs. Usage in lab averages 400 - 700 students a week.

- Walter Library: the opening of the computer facility in FY03 was the result of collaboration with the Institute of Technology. That collaboration included a leveraging of resources that allowed sharing of CPU cycles and grid computing technologies. Usage in lab averages 1200 - 1550 students per week.

Access To Purchasing Goods and Services

E-Commerce Report: In FY03 approximately 10,000 University department computers were purchased through TechMart. In FY04 TechMart will be creatively leveraged to aggregate computer purchases and software licensing agreements to meet the institutional cost savings initiative.

Electronic Resources

Technology for Life: In support of the Institution’s initiative to cultivate and maintain its relationships, OIT delivered Technology for Life (TFL) services in FY03. Personal Web Space, E-mail, Portfolio and Portal access are the specific applications included in today’s TFL service bundle. This initiative required internal OIT reallocation and a partnership with the EVPP to fund this initiative.

E-Mail SPAM Filtering/Protection: In early FY03, OIT activated a system to begin controlling and limiting the spam that comes to campus on central e-mail accounts. Approximately 45 percent of all incoming e-mail (from outside the umn.edu domain) is currently being blocked. Aside from offering institutional efficiencies and productivity improvements, there has been a positive reaction from customers and in FY04 there will be a continued focus to curb costs associated with SPAM.

Content Management Web Applications/Services: In FY03 OIT collaboratively evaluated feasibility of an enterprise system for managing web content. Although a campus demand exists today, there are a variety of product solutions that have unique strengths. This is a sign of a relatively immature enterprise technology. In FY04, OIT will implement a robust Content Management system that will be purchased in partnership with the Hubert H. Humphrey Center, U of M Extension, College of Human Ecology and the Office of Human Resources. After the initial implementation, OIT expects to expand the availability of the system to other collegiate/administrative units at very reasonable costs.

Personal Digital Assistant (PDA) Readiness: OIT continues to follow PDA developments relating to higher education. OIT’s Wireless Campus Initiative establishes a firm foundation for wireless PDA use on campus and the implementation of the above-mentioned content management system represents institutional progress in this initiative. OIT’s TechMart offers a variety of PDAs at discounted prices for students, faculty and staff.
Academic Technology Services

Teaching and Learning Technologies

- **Course Management System:** WebCT is an enterprise course authoring and instruction management tool for faculty to aid technology enhanced classroom and distance education instruction. In FY03 systems staff performed an operational upgrade to version 3.8 of WebCT. In FY04 OIT will conduct a technology assessment of the new WebCT Vista product. The cost of a Vista upgrade is projected to be $350K.

- **Faculty Tool Kit:** OIT-ADCS offers Acrobat, Photoshop, DreamWeaver & Flash software and licenses for use by U of MN Faculty members. This software is updated and offered to all faculty each year. In partnership with the EVPP’s TEL office, in FY03 OIT distributed Faculty Tool Kits to faculty across the entire system and will continue this program in FY04.

Faculty Resources and Partnerships

OIT provides daily consultation on design and support for Faculty TEL initiatives. Among these are:

- **Faculty Fellowship Program:** This program provides release time to selected faculty to perform research, collaborate, and develop skills in innovative teaching and learning processes. This program is sponsored and managed by OIT’s Digital Media Center (DMC).

- **TA Web Certification and Faculty Web-Camp Programs:** These programs provide faculty and TAs hands-on technology training with the principles of sound course design and implementation that are both functional and pedagogically smart. Sixty-seven teaching assistants from 43 academic departments participated in this program in FY03.

- **Technology Enhanced Learning (TEL) Courses & Faculty Training:** This program is designed to train faculty on the technology teaching applications that affect them as they integrate technology into the teaching and learning process.

- **Next Generation Faculty Professorate:** In FY03, OIT supported the EVPP’s TEL office in the Faculty Professorate program.

- **TEL Small Grant Program:** In addition to supporting the teaching and learning infrastructure, OIT facilitates the development of online courses and technology-enhanced learning material through a faculty grant proposal process known as the TEL Small Grant program. This program creates the cohesive bond between the University’s faculty and OIT’s Digital Media Center as a support organization and stimulates new and creative thinking in areas of instructional applications and technologies.

- **Video Production Services:** This service offers video production in support of teaching and learning initiatives. Internet streaming media is the predominant medium of choice, however, analog technologies such as VHS mediums are available.

General Technology Support and Service Delivery

OIT delivers services that support both enterprise and local departmental technologies. FY03 incremental adjustments have enhanced OIT’s relationship with its customer base and maintained customer satisfaction levels.

**Help-Desk/Support**

OIT offers customers a single call for help service: 1-HELP from any campus telephone. In FY03, OIT folded Portfolio, HIPPA, and Portal support into the help desk activities. Performance management objectives such as measuring and improving efficiencies were also addressed. Calls increased 21% as customer wait time decreased 10%. This improvement was achieved without adding help line staff, but with process changes and user education. Self-help tools are continually developed for customers who feel savvy enough to tackle their own technology challenges and to relieve the pressure on OIT’s help desk.

**Training**

OIT delivers technology training to students, faculty and staff in a wide variety of areas. In addition to offering specific courses on desk-top...
computer applications such as Microsoft PowerPoint, the center offers high-level network server administration courses – and training on the Institution’s enterprise services/applications. In FY03, OIT initiated training sessions on Wireless Networking, Portfolio, ...etc. These sessions are instrumental to new students and staff as part of the orientation that they receive to the University and it resources.

**Service Delivery Activities**

OIT’s zone-based service delivery model continues to maintain indices in the 90 percentile for over-all customer satisfaction. In FY03, OIT eliminated unnecessary data network service transactions through the adoption of the new network-funding model that eliminates the incentive to disconnect – then reconnect data services. Additionally, OIT migrated to an upgraded telephone, network and voice mail software management system in FY03. OIT upgraded this system to a generation of software that opens data base resources to the campus community in support of a communal service location knowledge base and for the implementation of self-services. The new generation of software is web-based and enables OIT to remove itself from some of the service delivery transactions that are necessary today because of the legacy system.

**Video Network Services (VNS)**

Utilizing video production, satellite teleconferencing, video conferencing, video duplication and video technical services, OIT’s VNS service delivery unit is in the process of bridging yesterday’s technology with emerging new technology, Internet streaming video. By leveraging the University’s investment in its data network and connectivity to external partners, OIT is undertaking initiatives to migrate to the H323 (video over internet protocol) standard. By accomplishing this migration to H323 standardization, the University’s interactive television network will interoperate with its academic partners’ at the State, K-12, and Internet 2. An example of this is the University’s participation in the Learning Network Blueprint for Higher Education Initiative.

Video technologies are unique in that they can be categorized as both an infrastructure and an application. In that light, video technologies are extremely strategic to the Institution as a delivery medium. For example, OIT will collaborate with the AHC in FY04 to employ the use of video technologies to deliver curriculum and enable administrative efficiencies as the Pharmacy program expands to the Duluth campus.

**Enterprise Applications Systems**

OIT has built a sound applications and development infrastructure to respond to the institution’s enterprise teaching, learning, management and business administrative needs. This area of focus is experiencing an increase in demand for web-based applications – applications that leverage the institution’s investment in previously implemented, underpinning enterprise services. Priorities and timelines for the initiatives listed below are determined by the ESP Sponsor/Management group previously mentioned in this compact.

**Web-Based Applications**

With self-service web registration, payroll and human resource tools in place, OIT continues it’s collaborative development style by layering additional and enhanced automation efficiencies.

FY03 deliverables included:

- OIT successfully upgraded to PeopleSoft version 8 software. This upgrade has enabled web functionality for all PeopleSoft users and offers more self-services features. The mainframe DARS system was upgraded to a Windows based system called DARWIN. Both projects were completed under budget and on schedule. The use of IVR technology was also discontinued during this project.

- OIT’s support of ePortfolio (a secure website for saving, organizing, viewing and sharing educational records) resulted in an open source initiative announced in February of 2003 by UMD. In conjunction with other colleges and universities (e.g. University of Michigan and University of Delaware) we will be releasing ePortfolio as “open source” software. The university is providing non-proprietary, open access to the use of this emerging technology that will accelerate development for all users. In a few short months, over 500 Institutions have downloaded the Open
Source application from 56 different countries. Closer to home, over 28,000 ePortfolios are in active use among the four University campuses.

- A complete rewrite of some infrastructure for University of Minnesota developed web systems was completed during the year. These changes allow for faster development times, more accurate statistical analysis and faster testing by functional users. It also allows us to remove old system software that was beginning to restrain development.

- Standardization of security authentication was made available using the X.500 system for access to systems such as PeopleSoft.

- In collaboration with the AHC, EVPP and University Relations, OIT delivered a next generation enterprise portal that offers customizable, elective user channels and links. The portal allows collaborative discussion lists and efficiencies in accessing systems that need the users attention without additional sign-on requests.

- All HIPPA training is being conducted through the MyU portal in order to educate the entire University community in the most cost-effective delivery system.

- OIT began work on an Enterprise Calendar system that is projected to leverage WebCT and University Events access to create calendars for students use. Focus was kept on building on top of technology that was already in place.

- Along with Academic stakeholder departments (Digital Technology Center, Office of the Vice President for Research, Department of Computer Science and Engineering, Institute of Technology, Department of Rhetoric, College of Agricultural, Food, and Environmental Sciences, School of Journalism and Mass Communication College of Liberal Arts, School of Kinesiology, College of Education and Human Development) OIT created a Usability Service Lab to provide usability evaluations and focus groups to both the University community and to corporate organizations. During the 5 1/2 months it has been in use, the lab has hosted 49 different events, on 76 different days, for a total of 316.5 hours of usage.

FY04’s Initiatives are driven by OIT’s Governance Committees and ad hoc groups like the President’s Service Improvement and Productivity: Financial Modeling Committee. As a result, these initiatives are in complete support and alignment with the institution’s short- and long-term priorities:

- **Return on Investment (ROI) Analysis Methodology:** Work continues to develop a methodology that will allow the University of Minnesota to better understand the costs and benefits of implemented systems. The E-Sponsor’s committee will continue to be used as the decision making body in determining which projects will be brought to the Enterprise group for implementation. The Financial Modeling Committee initiated by the President has assisted in the development of the ROI analysis process.

- **Imaging:** In collaboration with the AHC, EVP and the Duluth campus, OIT will deliver an imaging system that is designed to have a major impact to the Institution. The digitization of paper records will yield efficiencies, cost and space savings to the Institution – and improve services through near-instant search and retrieval capabilities. Since it’s inception, imaging automation has helped the Twin Cities Admissions office process 18% more applications with less staff.

- **X.500 Review:** OIT will revisit its authentication strategy to determine whether improvements and/or opportunities exist that may help simplify the way that authentication is used for the Institution’s enterprise applications.

- **Enterprise Calendar:** OIT will continue development on an Institutional calendar that brings together course management, campus events, and other applications into a common, mobile-capable calendar.

**Reporting**

Use of the enterprise systems has increased since implementation. Reporting metrics not only lead to effective measurement of systems/processes, but also a better understanding of the business processes that are served by these systems.
FY03 achievements included:

* Reports for Management (also referred to as the President’s Reports).
* PeopleSoft Version 8 Report creation.
* Technical Infrastructure Updates.
* Functional Area Reports (continuing)

FY04 objectives include:

* **Collegiate Reporting:** The initial focus will be to deliver information to support approximately 191 colleges, graduate and professional programs, the Academic Health Center, and the Graduate School, though these solutions will have significant extensibility to the broader university community. This project will result in enterprise data warehouse tables and reports containing information about:
  - curriculum (program and plan, courses, degree requirements),
  - students (applicant, demographics, program focus and/or research interests, progress, financial aid and sources of funding, graduation, and alumni),
  - faculty (FTE, preparation, degrees, salaries),
  - finances, and
  - research.

Benefits expected to result from this project include the reduction of costly duplication of effort required to maintain separate departmental shadow systems, reduction in costs and effort required to reconcile data multiple sources of data and results across units, provision of more accurate data to external entities and stakeholders, and greater security for institutional data maintained in local databases.

* **Instructional Management:** The DARwin system, as currently used, documents degree program requirements and individual student degree progress, as well as transfer course articulation data. This project will leverage the institution’s investment in both DARwin and the Graduation Planner PeopleSoft project by creating enterprise data warehouse tables and reports to provide both detailed operational data, as well as summarized information at the course and program level. The data/reports provided will assist university deans, department heads, and curriculum coordinators manage course access, instructor scheduling, and student progress toward degree. The ability to achieve greater synchronization of course access and student demand will not only support institutional graduation goals but should also result in additional tuition revenue.

* **Enrollment Management:** This project will yield a series of reports to support enrollment management from recruitment to graduation, including trend analysis and comparative information within the university, the Big Ten, and among public research universities. Enrollment management includes understanding student populations from recruitment through graduation, and the factors that predict and influence student success. Each college and/or program is responsible to manage their enrollment, and in many cases, they use shadow systems to keep track of their students. The first phase of the project will involve piloting enrollment management information solutions with the Multicultural Affairs program, which cuts across all colleges. The second phase of the project scheduled for FY05 will extend and enhance the use of the information and reports to all campuses and colleges.

* **Executive Management Reports:** This project represents a continuation of the work begun during FY 03 to develop reports designed for use by the president and academic administrators. The Vice President for Human Resources sponsors this phase of the project. The focus of work planned for FY04 is the resources that represent the University’s largest expenditures and greatest asset: its employees. Reports will provide information to support management and policy decisions related to wage and benefits administration, employee retention, exception reports to highlight early warning indicators and benchmarking or performance measurement applications.
Quality Assurance and Performance Assessment

The Quality Assurance team's mission is to provide a framework of best practices of software test management and automated software test engineering. This includes training, education, and testing services to the University community.

The Performance Assessment team provides a service by which software application owners, network engineering, and server infrastructure stakeholders can evaluate the ability of their systems to scale to meet the business need. The team provides a mechanism to understand the capacity, stability and durability of an end-to-end environment in a stable state or across change management activities.

In FY03 new testing software (Mercury Software’s LoadRunner, QuickTest and Test Director) was purchased. Over 100 tests were run using this software in preparation of the DARWIN upgrade, the PeopleSoft 8.0 upgrade, the SEVIS implementation, and numerous self-service applications. The results allowed us to identify potential hardware and software issues that could have caused problems in production systems. The testing also gave us a high level of confidence surrounding the 8.0 upgrade and high customer satisfaction in other implementations and applications.

In FY04 the objective is to increase the # of systems that are tested and to implement a functional test methodology across client areas. This testing methodology will streamline the entire Enterprise testing process, allowing for a reduction in space requirements for test instances, reduce the total number of test instances available, decrease the overall amount of time required for testing, and significantly reduce the overall cost of Enterprise testing for the University on both the technical and functional sides.

Application Development & Maintenance

In order for the University to see an adequate return on its Enterprise Systems’ investment, preventative and reactionary maintenance is essential for optimum system performance. Continual ‘tuning’ and performance management are institutional priorities and OIT core competencies.

FY03 achievements included:

- Successful implementation of the Library system.
- Continued development and enhancement of the PeopleSoft system during the Version 8 upgrade.
- DARWIN implementation.
- PeopleSoft Version 8 pressure testing through the March 2003 implementation.
- University of Minnesota self-insured benefit enhancement changes.

FY04 objectives include:

- Library System Expansion: In collaboration with the Libraries, OIT provided the technical systems and support for the implementation of Aleph in FY03. In FY04, OIT and the Libraries will work together again to expand this system to the coordinate campuses. This will be done by leveraging previous investments.

- Application Development: OIT will continue to leverage the Institution’s previous investments in the PeopleSoft system. FY04’s objectives are in direct alignment with the Institution. Governance and ad hoc committees have prioritized OIT’s application development priorities for FY04 as:
  - Four-Year Graduation Planner: In collaboration with the EVPP and Registrar, OIT will begin work on the ‘4-Year Grad Planner’ project. This project has an extremely high cost-saving potential to the Institution. The outcome of this project will enable academic resource management planning to occur well ahead of the actual need for resources – enabling the Institution to become much ‘smarter’ in the way that it manages the resources that are needed to deliver curriculum to its students. At the same time, students have a value-added resource tool at their disposal for developing graduation road-mapping strategies – and an incentive to adhere to them.
  - Effort Certification: This project is directly tied to enhancing a major Institutional revenue stream – research grants. The VP of Research and OIT will work together
ensure the Institution’s claims to the credibility and capability of its researchers in the grant-proposal process.

- **Training:** In collaboration with the Office of Human Resources, OIT will leverage the PeopleSoft system to manage HR development in a systematic, cost-effective and user-friendly way. By implementing PeopleSoft’s training module, the Institution will take another step toward the realization of the kind of cost-savings and efficiencies that can be realized through distributed HR functions practiced in a common, Institutional way.

- **Work Request/Work Flow:** OIT will continue work on an automated system that is designed to capture enterprise application project requests, evaluate the nature of the work (to include a variety of ROI components), schedule and track projects throughout the development process. The benefits of this project include an assertion of accountability and responsibility of OIT’s priorities and accomplishments to the Institution.

**Technology Infrastructure Operations**

The operations and maintenance of the University’s infrastructure components is critical to sustain enterprise services and their delivery to the University community. Through prudent analytical tools, OIT measures performance and in turn, creates efficiencies by reallocating resources to ensure the continuity of enterprise services. Additionally, performance measures and system metrics yield trend reports that enable efficient and prudent capacity planning. Effective obsolescence planning and implementation enable the redeployment of scarce University funds toward new technologies and support strategies. Through careful execution of these operational management philosophies, OIT continues to optimize the University’s return on its technology investments.

**Infrastructure Services**

FY03 achievements included:

- **Server and Mainframe Maintenance:** Preventative maintenance of these systems will continue through planned operating system and database upgrades to both the mainframe and servers. Back-up improvements will continue through FY04 to ensure the preservation of essential Institutional data.

- **Preparedness/Business Continuity Success:** OIT proved its preparedness for a potential catastrophic system or environmental failure by successfully planning and executing an Enterprise Disaster System disaster recovery plan. This success ensures the continuing operations of the Institution’s mission critical systems should an event occur that causes an enterprise system outage.

- **Data Network Maintenance:** The University’s network is now into the 5th year of its projected 5-year life cycle. The network’s current technology supports the institution’s teaching and learning, research, outreach and business administrative activities. By evaluating the interim next-generation small-scale network’s performance through true day-to-day operational experience, OIT began an FY03 collaborative planning process for an enterprise-scale next generation network.

- **Mainframe Reduction Strategy:** In a continuing process, CCO continues to reduce the number and amount of old systems that reside on the mainframe hardware. By the end of FY03, only a handful of systems will remain including CUFS and Property Accounting Managements System (PAMS).

- **Next Generation Network Planning:** In FY03, OIT began the collaborative processes related to the campus needs assessment for an enterprise-scaled next generation network. The experience of managing the previously mentioned interim network has provided valuable information to the needs assessment process.

This next generation network is forecasted to deliver secure, high-speed, high performance distributed computing capabilities that
will help the institution maintain its leadership position and meet its objectives.

**Infrastructure Cost Containment Activities**

**Performance Improvements.** OIT continues to measure performance and re-think data relationships that yield information resulting in process and system improvements. By employing these performance management techniques, OIT stretches the University’s investment by extending the useful life of enterprise technologies.

**Vendor Contract Renewals.** The University’s connectivity to the rest of the world is vital to the institution’s mission in a myriad of ways. OIT facilitates this connectivity by delivering services or forming strategic partnerships with service providers. Connectivity to the Coordinate Campuses, the Internet and long distance telephone networks are examples of these contractual relationships. OIT continually looks for opportunities to consolidate services and/or leverage economies of scale to lower costs for the Institution. OIT is also actively engaged in building strategic alliances with other consumer groups to leverage the Institution’s buying power.

In addition, the CCO group has concentrated on vendor contracts during the past year, and will continue to do so, enabling the University of Minnesota to save significant dollars on hardware and firmware costs. During the rest of FY 03 and in FY 04, many contracts will be ending, allowing for additional opportunities for savings.

**Technology Obsolescence.** Work will continue to proceed on reducing the use of our mainframe computer. The IVR technologies have been eliminated, and newer imaging technology is being implemented at the enterprise level.

In order to support a data network upgrade and follow the latest direction of the industry vendors OIT will drop support for native AppleTalk and Novell IPX protocols and providing support for IP based routing only. With advance preparation and budgeting, changes and upgrades will be accomplished with minimal impact to customers’ applications and their ability to use both the current and future networking hardware.

**Challenging The Conventional Approach.** OIT continues to challenge conventional decision-making approaches to information technology operations, capacity planning and life-cycle management. Extensive collaborative and consultative processes are used for feedback and recommendations. Continuing threads of topics include higher bandwidth needs, service redundancies, multi-protocol support, and fundamental operational assumptions. By questioning these conventional approaches and collaborating with its stakeholders, OIT demonstrates its technology leadership strength and value to the Institution.

**ASSURANCE AND SECURITY**

As business processes become automated through information technologies, data and computing systems become mission-critical institutional assets requiring protective measures that maintain their availability and integrity. Recent viruses, propagated through the Internet, have caused millions of hours of effort related to readying, recovering, and/or repairing mission-critical corporate and institutional data and computing systems. Increased interconnectedness and reliance on data has created more avenues to information. The misuse of this data can be both personally and institutionally damaging.

Minimizing risk is a constant challenge in a research institution. OIT’s commitment to technology assurance enables the University of Minnesota to balance these two somewhat conflicting elements. OIT has continually reallocated internal funding ($650K) to support the Institutions initiatives. OIT will be challenged to figure out ways to continue reallocation.

OIT is working collaboratively with the Office of Student Affairs, the Office of Human Resources, Residence Halls, and the Coordinate Campuses to increase efforts to educate students/staff/faculty on copyright issues related to peer-to-peer file sharing. Applying policy and using approved sanctions appropriately can reduce unauthorized distribution of copyrighted materials.

Accomplishments for FY03 include:

- Continued to align university security efforts with the Educause security framework and strategies to leverage the efforts and knowledge at other higher educational institutions.
- In consultation with the university Security Advisory Committee, faculty advisory committees, and university administration,
established standards for the protection of critical research and other legally protected data stored on computers.

- Evaluated and made a recommendation to administration on the use of a commercial computer security event monitoring service to identify (and notify university staff 24 X 7 X 365) of potential security events for enterprise-level hosts.

FY04 objectives include:

- Better coordinate and improve incident response processes.
- Identify and document staff contacts for critical servers.
- Implement intrusion detection capabilities for selected computers.
- Reduce resources required for residence hall issues by automating portions of incident response and policy enforcement.
- Develop HIPPA-related compliance support mechanisms (e.g. staff, software and others support services). Recurring funding of $182,550 was provided to OIT through the FY04 budget process for HIPPA-related costs.

EXTERNAL TECHNOLOGY INITIATIVES

OIT’s external technology initiatives directly align with the mission of the Institution through practical demonstrations of technology leadership, outreach and research participation. They establish a competitive edge for institutional research grant pursuits, academic partnerships with State, K-12 and other agencies. These initiatives create new avenues for broad institutional participation in academic and research technology initiatives, collaboration and partnerships.

Cooperative Infrastructure Technology Projects with Schools and Communities:

In FY03, OIT completed connection of the MnSCU network to the Northern Lights Gigapop, the University’s regional network access center. Many K-12 school districts were also added. Each connection offers access to advanced network services, which enable collaboration, distance education, and efficient information sharing. Northern Lights accepted the invitation to join a national consortium of the largest advanced regional network organizations for research and education. Participation in the consortium brings opportunities, such as increased the options for lower cost networks services, that otherwise would not be available.

OIT supported the Minnesota Learning Network, participated in numerous cooperative initiatives with State agencies, Private Colleges and K-12 through the HEAC Technology Steering committee. OIT supported United Way through its Service Through Technology Task Force.

In FY04 OIT will continue to leverage technology resources with MnSCU and state agencies through a joint powers agreement. OIT is planning to increase the number of cooperative projects that use high performance network applications, and continue adding K-12 school districts and Minnesota Private Colleges connected to the network.

Advanced Network Support for National Research Projects:

In FY03, OIT leveraged the Internet2 resource to support universities in North Dakota and South Dakota including the EROS data center. The connection enables distributed research and education collaboration.

In FY04 OIT will include targeted opportunities to support research areas in Health Sciences, such as bioinformatics, nanotechnology and functional genomics; continue exploration of ways to enable collaboration between the University, Mayo Clinic and other major health institutions; and continue exploring ways help departments pursue grants that require or favor Internet2 use.

The support list of initiatives at the University include: St. Anthony Falls Laboratory ‘ National Center for Earth Surface Dynamics, MAST NEESGrid-national virtual ‘collaboratory’ for Earthquake Engineering Research, Biomedical Informatics Research Network (BIRN) as well as the Digital Technology Center, Laboratory for Computational Science and Engineering (LCSE) and the Supercomputing Institute.

METNET Upgrade:

In FY03, through OIT, the University and 11 MnSCU campuses became part of a high-speed network that allows the state's higher education institutions to share data, video and much more.

METNET, the Metropolitan Education Telecommunications Network, uses high-speed fiber to provide the schools access to high capacity networks throughout the state. Students now have faster access to records and
services, while their institutions keep costs down by combining their buying power.

The new technology infrastructure, while supporting the academic mission of the Twin Cities' university and college campuses, will also provide opportunities for collaboration with private colleges, K-12 schools and libraries. METNET is one of six regions that make up the higher education portion of the Learning Network of Minnesota, an initiative funded through the Minnesota Higher Education Services Office and campus contributions.

**Planning for Emerging Academic and Research Technology Needs**

OIT engages collegiate and business administrative units in dialogue on many key levels (Dean, Assoc. Dean/Director, and technical staff) of each organization. Last year’s collegiate input was included in the University’s legislative priorities, budget and allocation process. OIT’s planning, operations and service groups consult regularly with colleges and coordinate campuses. This results in the development of enterprise services to meet collegiate and institutional needs.

Collaborative technology planning activities for FY03 included:

- Semi-annual Dean/coordinate campus Chancellor/CIO sessions.
- Annual Co-Provider Meeting (Associate Deans and collegiate MIS/IT Directors).
- Special Co-Provider brainstorming session to address President’s Initiatives to improve service and enhance productivity.
- Bi-monthly OIT/Collegiate Information Technology Manager/Director planning sessions.
- Monthly technology-specific meetings focused on a variety of disciplines and geared toward collegiate technologists.
- Bi-monthly coordinate campus technology working/planning meetings.
- Participation in the faculty governance initiatives such as Senate Committee for Information Technology (SCIT), Classroom Advisory Sub-Committee, …etc.
- Participated in the Educause Core Data Service survey by providing data about campus information technology environments and practices that will enable institutional benchmarking of technology.
- Created a 5-Year Technology Strategy that outlines the organization’s strategic direction – one that is in direct alignment with the Institution’s mission and priorities.

Ultimately, this collaboration sets OIT’s direction and is documented and reflected in the yearly Compact. FY04 activities will focus on collegiate collaboration that results in institutional technology alignment consistent with the President’s service and productivity initiatives.

By applying and practicing the University’s core teachings, OIT continually employs strategic thinking principles coupled with collaborative and consultative processes to forecast higher educational trends in order to anticipate institutional needs. Because next generation technology readiness is a crucial component of the organization’s planning process, OIT is poised to deliver next generation enterprise technologies in a prudent, efficient, cost-effective manner.

**Human Resources**

**Collegiate Information Technology Program (CITP)** The CITP is an OIT/collegiate human resources technology partnership program where OIT funds full or partial salaries of college-hired technology professionals. OIT continues to foster the development of this program through frequent contact and collaborative efforts such as training, and informational updates with collegiate members who are employed in a variety of technology capacities throughout the institution. This program is of strategic importance to the Institution as it represents the standardization of technology management practices, which yield efficiencies and cost savings.

**Diversity.** OIT values a diverse workforce and believes that individuals from varied backgrounds will serve to strengthen and enrich the Department as a whole. OIT will continually strive to recruit and retain the most qualified staff members, while seeking to maintain a welcoming and respectful environment for employees from all backgrounds. OIT tries to reach a diverse audience of applicants throughout the recruiting process and will continue to research new and alternative recruiting methods that will attract a broader applicant pool.
P&A Employees

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Minority</th>
</tr>
</thead>
<tbody>
<tr>
<td>OIT</td>
<td>68.0%</td>
<td>32.0%</td>
<td>16.0%</td>
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<tr>
<td>UofM</td>
<td>44.8%</td>
<td>55.2%</td>
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Minority

<table>
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<tr>
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<tr>
<td>UofM</td>
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C.S./Union

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<tr>
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<td>UofM</td>
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Minority

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**GENERAL ADMINISTRATIVE AND FINANCIAL ISSUES**

**Enrollment Management**

N/A

**Productivity and Service (Impact of the Enterprise Project)**

OIT consolidated its payroll and human resources functions prior to the completion of the Enterprise Project.

**Compact Development**

Institutional and collegiate initiatives drive OIT’s internal compact development process. By establishing a variety of organizational relationships with collegiate and business administrative units, OIT is able to shape its enterprise service development initiatives. Directional and communication synergies between OIT’s core operational and support units - and at all staff levels - are critical to this compact’s internal development and review. Compact development is a year-round process, culminating in short review and completion activities. (See Planning for Emerging Technology and Research Needs on p.10 of this document)

**Facilities Issues**

OIT’s ADCS to Williamson Hall Relocation: Academic and Distributed Computing Services (ADCS) will move to the Williamson Hall ground-floor space that was occupied by the Book Store. This location is ideally suited to ADCS’ mission of providing convenient access to computing for all University students, faculty and staff and Williamson’s central location and ‘public’ layout.

**Data Profile**

For a display of planning data related to the Office of Information Technology, refer to the link on the University web site managed by the Office of Institutional Research and Reporting at http://www.irr.umn.edu.

**Financial Issues**

OIT will continue to address the following technology-related financial issues throughout FY03, and as part of FY04’s budget and compact discussions:

**Data Network Upgrade**

In FY04, OIT’s Networking and Telecommunications group will begin an Institution-wide data network upgrade.

The University’s current network, now 5 years old, has outlived its ability to meet emerging research, distance ed., video and other needs. A network upgrade will enable the Institution to remain competitive in areas that rely on network services and unify management of network resources to enhance the collaboration that is needed between the Coordinate and Twin Cities campuses.

This upgrade will achieve the following Institutional objectives:

- Increase network performance
- 10 to 100 times more speed
- Improved security and reliability supporting the HIPAA requirement
• Supports all current standards needed for interoperability with other networks
• Guaranteed Internet video conferencing and streaming video quality - supporting the University’s distributed education initiatives
• Simplified management will support shared management model required by some colleges
• Supports OIT “common good” network goals that will lead to 95% adoption of centrally managed networks and lower the university’s total cost of network management

With guidance and assistance from the EVPP and the Budget Office, this project will be financed over five to six years for approximately $16 million.

Financial Systems
CUFS, the University's current legacy financial system, has become increasingly difficult to support. This is true particularly when new systems require a CUFS interface. The amount of manipulation that is taking place around the CUFS system increases the current system's susceptibility to failure. Without vendor support, license, or application code, the Institution is solely reliant on one or two staff members to fix things as they break. This presents a major risk to the Institution's core financial business tool - and ultimately the University's business operation.

Working in partnership with the Controller's organization, in FY04, OIT will begin an effort known as "The Trail Blazing Project". This project will reduce the costs and risks of an over-all financial system project implementation by way of thorough examination/analysis of the new software's functionality and potential. This approach will also increase the benefits of a full implementation project.

WebCT
OIT, with guidance from the Course Management Advisory Committee, intends to upgrade its existing course management system in FY04. Today's system is operationally limited and is at the point of exhaustion with over 1000 courses and 30,000 unique students. The new system offers a completely new architecture, which scales to the Institution's broad credit and non-credit course offerings. Additionally, the new system's interface will offer more flexible course management capabilities and help faculty adapt to this teaching and learning resource. OIT was allocated $300,000 in recurring funds for this initiative through the FY04 budget process.

Microsoft Campus Agreement
In FY04, OIT will explore the perceived benefits of subscribing to an all-Twin Cities campus license agreement with Microsoft for operating systems and office applications. This subscription will: reduce the costs associated with software administration through centralized budgeting and purchasing; enable colleges and administrative units to standardize software which will create support efficiencies and cost savings; and, reduce the University's risk of violating software license agreements. OIT was allocated $700,000 in recurring funds through the FY04 budget process to support the campus-wide agreement.
OIT continually generates internal cost-savings and redeployes these resources to ensure a continuity of services and support to the Institution. The EVPP also provides investment allocations to fund specific strategic initiatives and/or technologies. The table below reflects the EVPP's year-to-year investment allocations:

<table>
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<tr>
<th>Historical Allocation Summary</th>
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<tr>
<td><strong>FY2002 through 2004 Investments</strong></td>
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<td><strong>New Funding</strong></td>
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<tr>
<td>Coffmann Union Computers **</td>
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<td>Microsoft Campus License *</td>
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<tr>
<td>WebCT *</td>
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<td><strong>Total</strong></td>
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Amounts allocated through:

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