OLD DOMINION UNIVERSITY
INFORMATION TECHNOLOGY
STRATEGIC PLAN: UPDATED FOR 2008 - 2009

OLD DOMINION UNIVERSITY MISSION STATEMENT
Old Dominion University promotes the advancement of knowledge and the pursuit of truth locally, nationally, and internationally. It develops in students a respect for the dignity and worth of the individual, a capacity for critical reasoning and a genuine desire for learning. It fosters the extension of the boundaries of knowledge through research and scholarship and is committed to the preservation and dissemination of a rich cultural heritage. Old Dominion University is old enough to value tradition yet young enough to facilitate change. In a spirit of creative experimentation, innovation, research, and technology, the University is ready to meet the challenges of the twenty-first century.

OFFICE OF COMPUTING AND COMMUNICATIONS SERVICES VISION STATEMENT
The Office of Computing and Communications Services (OCCS) exists to provide support to Old Dominion University’s core activities of teaching and learning, research, and service by making available advanced academic and administrative technology to the educational and research communities. The Office provides leadership in the adoption of new technologies and increases efficiencies through active partnerships with all academic, administrative and technology organizations at the University.

OFFICE OF COMPUTING AND COMMUNICATIONS SERVICES MISSION STATEMENT
The Office of Computing and Communications Services' mission is to provide high-quality, cost-effective computing and communications services that meet the changing and expanding needs of the University community. OCCS fosters excellence, innovation, best practices, and effective communication in the use of computing and communications technologies in teaching, learning, research, and administrative endeavors across the University.
INFORMATION TECHNOLOGY ADVISORY COMMITTEE

The Information Technology Advisory Committee (ITAC), a body appointed by the President and granted authority by the University’s Board of Visitors, reviews information technology strategies, priorities, policies, and standards recommended by the Chief Information Officer, Office of Computing and Communications Services (OCCS), and affiliated organizations. ITAC is comprised of representatives from various campus constituencies and assists the CIO and OCCS with providing oversight in general technology management.

IT STRATEGIC PLAN

INTRODUCTION

The effective application of Information Technology is critical to the University’s attainment of the strategic goals outlined in the Old Dominion University Strategic Plan 2005-2009. The quality of our technology environment affects the way we teach and learn, impacts research activities in fundamental ways, the way we manage our business processes and the way we interact with those whom we serve. As the University moves into a new strategic planning cycle for 2010-2014, the IT Strategic Plan will continue to track and contribute to emerging strategic initiatives of the University.

Changes in information technology impact both the academic and administrative portions of the institution, and each year, information technology resources consumed by faculty, students, researchers, and staff increase dramatically.

- The increased emphasis on e-learning demonstrates how Information Technology continues to transform the traditional pattern of learning. Blackboard, a course management system, provides the technology infrastructure that supports usage by hundreds of courses each semester.
- Technology classrooms provide instructors with access to multimedia and interactive technologies designed to enhance the classroom experience of both teachers and students. Over the past six years, the percentage of technology classrooms has grown from 30 to 85 percent of all classrooms. Technology seminar and conference rooms are increasing as well.
- The availability of advanced technologies has created the opportunity to review and redesign business processes, resulting in increase efficiency and enhanced user satisfaction. An investment in digital imaging technology has helped ODU administrative offices to substantially reduce costs and to make complex decision processes easier to manage.
- In addition to increasing operational efficiencies, rapidly emerging technologies are enhancing college and university leaders’ ability to better utilize ever-growing body of information regarding institutional performance in the areas of recruitment, enrollment, student success, finance and fund-raising. These
abilities benefit, not only in increase internal efficiencies and effectiveness, but become the cornerstone responses to burgeoning external demands for accountability, e.g., to funding agencies, elected officials and the public at large. The institutional investments in the Data Mart and the Operational Data Storage (ODS) have provided secure, reliable, and complete information for internal business decision-making and response to external audiences.

- Desktop computing continues to expand in both the academic and administrative areas with some core functions, such as Web Time Entry, solely dependent upon access to a personal computer. In 2000, the campus supported approximately 2,500 desktops and a few, very rare notebooks. In 2008, there are over 5,000 networked computers and over 6,000 wireless user accounts.
- The continuing trend toward wireless computing has emerged as students bring more notebooks to campus. Our expansion of wireless infrastructure and the introduction of a student notebook program help to ensure compatibility with the technologies students bring to campus.
- The development of a local optical network connects Old Dominion University to the major regional research labs NASA/Langley Research Center and Jefferson Lab, supports regional modeling and simulation activities, and provides connectivity to national networks to include Internet2 and the National Lambda Rail.

The purpose of a technology strategic plan is to align Information Technology (IT) with the business requirements, strategy, and goals of the University. The IT plan is addressed through the budget process where strategic institutional goals are emphasized. In the current University Strategic Plan, a primary goal is for the University to become a top-100 public research institution. As the goals are identified during the 2008-09 planning process, the IT strategic plan will continue to track major institutional goals and adapt its strategy to match.

Currently, the components of the Old Dominion University’s IT strategic plan are to:

1. Build and maintain a solid foundation of IT infrastructure that is modern and consistent with current standards.
2. Maintain a secure IT infrastructure that safeguards the integrity and access of University data and meets federal and state compliance requirements.
3. Maintain a multi-tiered IT support structure comprised of individuals who are trained to provide direct and customized support addressing the business requirements of individual organizational units.
4. Develop and maintain robust IT resources to support faculty instructional activities and to facilitate student learning.
5. Make available and maintain IT tools for business improvement.
6. Develop and maintain a robust cyber infrastructure to support the research community.

**INFRASTRUCTURE**

Information Technology is fundamental to teaching, research, and administrative and business services in higher education. The core and foundation of IT services is a reliable, robust, and secure infrastructure.

a. Provide a reliable and available campus server and network infrastructure.
   i. Implement a five-year plan for server and network infrastructure growth, replacement, and upgrades.
   ii. Monitor resource availability and utilization of key IT infrastructure services, and provide this information to the campus community.
   iii. Research and deploy emerging server and network technologies

b. Provide standardized IT solutions for faculty, staff, and students.
   i. Maintain desktop/notebook computer replacement plan for faculty and staff.
   ii. Provide a basic suite of software for all faculty and staff.
   iii. Support multiple and diverse computing platforms.
   iv. Provide secure remote access to information and computing resources.
   v. Research and integrate emerging technologies into the infrastructure.

c. Over the next three years, develop and implement a unified messaging solution that integrates email, instant messaging, voice, and video services.
   i. Develop and implement robust email solutions for faculty, staff, and students.
   ii. Explore alternative communications platforms, e.g., Voice over IP (VoIP), IP Call Center (IPCC) services, video and web conferencing, etc.

d. Develop and implement collaboration technologies to support instruction, research, and administrative services.

**SECURITY**

The primary goal in this area is to develop and maintain a secure IT infrastructure that protects the integrity of and access to all University data and resources.

a. Develop and maintain policies and standards to protect the integrity of University data.

b. Effectively apply security best practices in a higher education environment.

c. Implement technologies for security monitoring, detection, and recognized best practice safeguards.
   i. Maintain life-cycle replacement and upgrade plan for security technologies.
   ii. Implement security rules for IT policy compliance.

d. Maintain and test a disaster recovery plan.

e. Develop and maintain middleware and identity management services.

f. Participate in IT audits.
Support

OCCS maintains and supports a complex technology portfolio and a vast array of technology services for the University. OCCS has focused on several key areas in developing and maintaining IT user support resources that meet the needs of the campus community. Expectations for existing and new technology support services continue to expand.

a. Recruit and retain qualified IT staff members.
   i. Provide professional development opportunities for IT staff.
   ii. Provide training for all IT staff appropriate to their roles.

b. Provide a leveraged support model.
   i. Maintain the Technical Support Personnel (TSP) program.
   ii. Maintain strong communications and coordination between central and distributed support staff.
   iii. Leverage qualified students in positions across all aspects of OCCS.

c. Provide a “one-stop” 24x7 help desk.
   i. Expand and improve self-help services as necessary.
   ii. Provide IT training to faculty and staff.
   iii. Maintain and monitor customer service levels and make adjustments as needed.

Faculty Instruction and Student Learning Technology Services

The instructional and learning technology tools available for faculty and students include the online e-learning environment, technology classrooms, mediated computer classrooms, and general purpose computer labs. Accomplishing the following strategic goals requires close integration of the efforts of OCCS, the Center for Learning Technologies, the Office of Distance Learning, the Provost, Deans and the faculty,

a. Provide a suite of e-learning technologies in support of faculty instruction.
   i. Provide a standard course management system, e.g., Blackboard.
   ii. Provide a scalable computer-based, online testing system.
   iii. Develop e-portfolio and digital repositories, integrated with course management system.

b. Provide collaboration technologies for the delivery of course content and instructional activities.

c. Provide technical services in support of delivering distance learning courses.
   i. Provide scalable infrastructure for the delivery of video streamed courses.
   ii. Programatically support the automation of business processes for distance learning courses.

d. Provide a student-owned notebook computer program.

e. Provide and support IT-enabled and computer classrooms.
   i. Establish equipment standards and review them annually.
   ii. Maintain five-year life-cycle replacement and upgrades plans for classrooms.
iii. Integrate support with “one-stop” help desk.
iv. Follow guidance of the Classroom Central Advisory Committee.
v. Ensure IT involvement in the planning of new and renovated classroom facilities.
f. Provide student computer labs in support of instructional activities, both providing appropriate access to resources and a certified repair program.
g. Develop IT-enable learning spaces in academic spaces.
h. Partner with the Center for Learning Technologies in Distance Learning for faculty development with instructional technologies.
i. Research and provide emerging technologies to support faculty instruction and student learning.

**BUSINESS IMPROVEMENT**

Technology, well-applied, can support and enhance all business processes at the University. The following outlines a process and milestones for enhancing the role of technology in this area.

a. Provide secure and functional business applications in consultation with key University officials and the user community.
b. Develop and provide applications making available data in a useful and efficient fashion to meet University, college, and departmental goals.
c. Develop and provide technology solutions and process to support enrollment management and decision support.
d. Coordinate information system request priorities where no request is in the queue longer than 12 months.
e. Promote and apply technology solutions and innovative processes for enhancing University operations and improving customer service.
f. Research and provide emerging business technologies that support improved business services.

**RESEARCH**

Given the University’s renewed emphasis on research expansion, aggressive efforts to provide support are indicated.

a. Provide and expand cyber infrastructure resources for researchers.
   i. Provide and maintain high performance computing resources.
   ii. Participate in regional and national projects to provide researchers access to external high performance computing resources.
   iii. Provide and maintain mass storage to support large data sets.
   iv. Provide researchers access to E-LITE and national research networks.
   v. Provider leadership with regional and state network initiatives.
   vi. Develop and maintain grid middleware infrastructure.
   vii. Coordinate making advanced software research tools available.
b. Educate researchers about cyber infrastructure resources and opportunities to leverage IT in funding proposals for sponsored research.

c. Provide technologies to support scholarly collaboration among researchers at Old Dominion and at other institutions.

d. Offer workshops on cyber infrastructure.

**Shared Service Delivery**

The Office of Computing and Communications Services’ (OCCS) mission is “**provide high-quality cost-effective computing and communications services that meet the needs of the University community.**” OCCS does not provide all services on campus. Under the federated support model adopted by the University, the responsibility for service delivery is shared.

Colleges and administrative units are responsible for services that address the specific (often discipline-specific or local) needs of their students, faculty, and staff.

The OCCS organization, ITAC, Colleges, the library, and administrative units share responsibility for planning, standard setting, administrative systems development, and security.

The OCCS organization is responsible for services that are used centrally by faculty, students, researchers and staff in all colleges and administrative units; that are most cost-effectively provided centrally (economies of scale); and that require interoperability among colleges and departments.

**Annual Operational Plan**

Consistent with the IT Strategic Plan, an internal operational plan is established annually in conjunction with institutional budget processes. The plan identifies key priorities, activities and performance measures to be completed during the fiscal year. The plan translates the broad direction of the IT Strategic Plan into more immediate priorities and activities and acts as a practical, working document, designed to translate strategic thinking into day-to-day decision-making. This process ensures that priorities are incorporated into the routine management of human and financial resources.

This operational plan does not intend to be a comprehensive document for all activities undertaken in any one year. Rather, it identifies a limited number of key priorities requiring action to make progress towards the achievement of longer term goals and strategic issues to be accomplished within a single fiscal year.

Unit plans are linked to the operational plan, just as the operational plan is linked to the University’s overall Strategic Plan. Implementation will follow established University processes and procedures.

The success of the execution of the annual operational plans is examined using standard metrics and qualitative information gathered during the year. This examination, in turn,
is used to implement improvements and to chart future strategic initiatives in IT and for the University.

**Summary**

The University will continue to be increasingly dependent upon technology in the future for teaching, learning, research and service delivery in ways that few can predict. This dependence will be driven by the changing expectations and needs of the incoming students, faculty and researchers, as well as by the new capabilities provided by technological advances. ODU’s information technology service organization is positioning people and resources strategically to respond to the needs expressed by students, faculty, and researchers.