Old Dominion University
Information Technology
2009-2014 Strategic Plan

Old Dominion University Mission Statement
Old Dominion University, located in the City of Norfolk in the metropolitan Hampton Roads region of coastal Virginia, is a dynamic public research institution that serves its students and enriches the Commonwealth of Virginia, the nation, and the world through rigorous academic programs, strategic partnerships, and active civic engagement.

Old Dominion University Vision Statement
Old Dominion University will be recognized nationally and internationally as a forward-focused metropolitan university with a collaborative and innovative approach to education and research that spurs economic growth, focuses on student success, engages civic and community partners, and uses its connections with the military and maritime industries and its exceptional strengths and leadership in related areas to provide practical solutions to complex, real world problems.

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.

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.
IT Strategic Plan

Introduction

Information Technology continues to permeate every aspect of our academic and operational environments. The quality of our technology environment affects the way we teach and learn, impacts University research activities in fundamental ways, the way we manage our business processes and the way we interact with those whom we serve.

Strategic Drivers for Information Technology

OCCS’s role is to ensure that Information Technology is aligned with the mission, vision, and goals of the University it serves. In evaluating our alignment, several strategic drivers have emerged which serve to factors that influence our direction. These drivers are leadership choices we make to integrate into our principal philosophies and

Support the Mission of the University

The investment of IT resources should be examined based on the broadest possible reach into the University’s academic, research, and public engagement missions.

- Increase competitiveness in attracting top quality students, faculty, and researchers
- Achieve national prominence in academic programs and scholarship.
- Improve student learning and engagement
- Foster interdisciplinary teaching and research.
- Incorporate instructional technology.
- Assess performance and value of programs.
- Improve operational, financial efficiency.

Improve Customer Service

The needs of individuals and organizations should be examined based on improving service to customers in terms that include, but are not limited to the following:

- Impact the broadest possible scope of users (students, faculty, staff, visitors, etc.).
- Improve customer service and responsiveness.
- Facilitate easy and reliable access to resources and information.
- Provide services and resources to support teaching, scholarship, research.
- Provide tools for management and decision making.

Improve Communications and Collaboration

Connecting people to the people and resources necessary to accomplish individual, departmental, and institutional goals.

- Reduce or eliminate the learning curve for new communication technologies.
• Integrate solutions into current work habits and preferences as appropriate.
• Enable archiving and retrieval
• Provide fast, reliable self-service whenever possible

Optimize Campus Resources
IT resources should be managed for a maximum return on the University’s past and future investments, and may include but not be limited to the following:

• Build on or take advantage of existing IT capabilities and solutions.
• Enable new capabilities and solutions.
• Take advantage of existing knowledge and skills.
• Enhance solution provider relationships.
• Improve business processes.
• Reduce redundancy.

Manage Compliance and Risk
This acknowledges our responsibility to protect the University as an institution and as a body of individual students, faculty and staff.

• Adopt proven, reliable, and sustainable solutions whenever possible.
• Avoid negative impact on existing solutions.
• Conform to accepted technical architecture, standards and best practices.
• Adhere to regulations and organizational policies and guidelines.
• Improve the privacy and security of individual information.

Improve Data and Information Access and Management
This theme addresses the need for appropriate and secure access to reliable and accurate data and information to support institutional, departmental and individual requirements.

• Improve data and information integrity.
  o Availability
  o Timeliness
  o Accuracy
  o Quality
  o Usability
• Make data transportable for use in different applications.
• Facilitate efficient collection and storage of data and information.
• Provide complete data and information.
• Support information openness and transparency of operations.
• Secure private and sensitive data and information.

This information technology plan is designed to assure that campus IT priorities and initiatives are targeted to support the University Strategic Plan. Deliberate alignment connects the continuous development of technology to support high-quality learning environments and effective business processes. Prioritization and coordination of
technology planning and implementation helps ensure that students, faculty, and staff have technology to thrive in a technology-rich future. Our vision is to align technology with the vision, mission, and goals.

**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.

of the University through support for faculty and staff development, the investment in our technology infrastructure and the wise selection of technological opportunities

Financial pressures make it imperative to review information technology priorities across the institution to align initiatives with the strategic plans of the institution optimizing for cost savings and efficiency.

the **IT Strategic Plan** will continue to track and contribute to emerging strategic initiatives of the University

**Shared Direction**

The heart of information technology’s alignment with an institution is a common understanding of that institution’s priorities. The challenge, therefore, is to align organizational plans, investments, priorities, and actions not only with institutional priorities emanating from the leadership but also with relevance to the rapidly shifting goals of disparate colleges, schools, and departments. Information technology’s constant evolution

To promote this alignment, the OCCS engages in an ongoing conversation with the campus community about strategy and direction and develops strategic plans for IT based on the aspirations and trends revealed during this conversation.
The Information Technology Advisory Council (ITAC) provides advice and guidance on information technology policies, strategies, issues, directions, and priorities. The committee is advisory to the Chief Information Officer (CIO) and is appointed annually by the Provost and the Vice President for Administration and Finance. ITAC maintains a mid-to-long range perspective and facilitates well informed campus communication, participation, and dialogue on information technology issues, directions, and strategies vital to the future of the University.

**Alignment**

The Information Technology Strategic Plan has been revised to reflect the goals and objectives set forth in the Old Dominion University 2009-2014 Strategic Plan. While many of the original IT goals are still appropriate, the 2009-2014 Information Technology Plan has used the opportunity to further align IT objectives with the larger university goals to enhance and to support the academic mission. Guided by the University Strategic Plan, this document elaborates on the six Strategic Goals.

Goal 1. Provide Students With the Tools to Succeed
Goal 2. Gain a National Reputation Through Key Academic Programs and Scholarship
Goal 3. Invest Strategically in Research to Spur Economic Growth
Goal 4. Enrich the Quality of Campus Life
Goal 5. Expand International Connections
Goal 6. Build Strong Civic and Community Relationships

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 increased efficiency and enhanced user satisfaction. An investment in digital imaging technology has helped ODU administrative offices to substantially reduce costs and 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 increasing internal efficiencies and effectiveness, but become the cornerstone of University responses to burgeoning external demands for accountability, e.g., to funding agencies, elected officials and the public at large. The University’s 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 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 LambdaRail.

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 University budget process where strategic University 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 University 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 cyberinfrastructure to support the research community.

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**Six Key Commitments**

In the support of the mission of the university and the Strategic Plan, OCCS is committed to providing academic, operational, and student technology services, to maintaining the technology infrastructure necessary to support these services, and to developing the

Infrastructure
Teaching, Learning and Student Success
Security and Standards
Services and Support
Increased Business Value
Research

**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
Over the next 3 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.

**Faculty Instruction and Student Learning Technology Services**

The instructional and learning technology tools available for faculty and students include the online e-learning environment, mediated 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

**Instruction, LEARNING and Student Success**
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p. Develop IT-enable learning spaces in academic spaces
q. Partner with the Center for Learning Technologies in Distance Learning for faculty development with instructional technologies.
r. Research and provide emerging technologies to support faculty instruction and student learning

**Security and Standards**

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

SERVICES AND 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

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 cyberinfrastructure 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. Provide 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 cyberinfrastructure 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

**Annual Operational Plan**

Consistent with the IT Strategic Plan, an internal operational plan is established annually in conjunction with University 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.