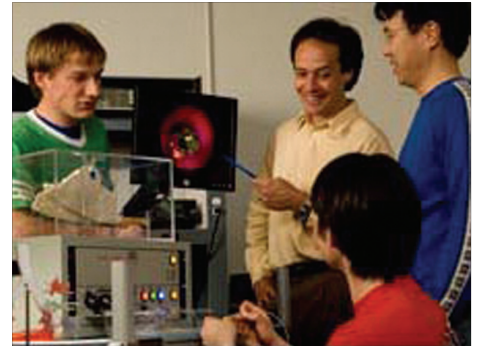


COMPUTING & COMMUNICATIONS

Strategic Plan

January 2007



Commitment
 to Customers
 Integrity
 Excellence
 Innovation
 Collegiality



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Photo credits: All photos by C&C staff except those by University Photography on pages 3, 4, 5, 6, 8, and 11.

This report also is available online at
<http://depts.washington.edu/cac/cchome/splan.finalrpt.pdf>

Executive Summary

This strategic plan articulates a vision for the Office of Computing & Communications that is based upon insights gleaned from surveys and in-depth interviews with more than 160 people from across the university community and analysis of the University of Washington's future needs and challenges.

Under this plan, the Office of Computing & Communications (C&C) will become an organization known not only for its technology expertise but also for its ability to listen to its customers, understand their needs, and work collaboratively with them to solve their biggest challenges.

C&C will be a valued and trusted partner, bringing knowledge, expertise, and resources into collaborations that achieve the results that customers seek. C&C will draw upon its connections with the world's leading technology visionaries to enable its partners to take advantage of ideas and technology on the leading edge. At the same time, it will work with customers to better understand their academic, clinical, business, and technology needs, ideas, challenges, and aspirations. Leveraging the full power of technology, C&C will enable faculty, clinicians, staff, students, and volunteers across the university to seize opportunities to do their most important work.

C&C is already doing much of this today, according to input from the university community. But to fully realize this vision, C&C will need to build upon its current strengths and make significant organizational changes.

Over the past year, C&C and many members of the university community have evaluated the steps needed to make these changes happen. Teams of C&C staff have mapped out detailed goals and objectives. The results of this effort are outlined in this report.

An Organizational Development Focus

This strategic plan is not a technology plan for the university. It is, rather, an organizational development plan for enabling C&C to partner with the UW community to develop a comprehensive institutional technology strategy.

This plan focuses on making the organizational changes necessary for C&C to become more responsive, collaborative, and customer-focused. It lays the foundation for C&C to keep ahead of rapid



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advances in technology so that the university community can meet its diverse and evolving needs. It will enable C&C to build and sustain the technology environment necessary to support the UW's interdisciplinary partnerships, enhance its research strength, and advance its global competitiveness.

Key Strategic Directions

The plan identifies five key strategic directions C&C will take over the next three-to-five years:

- **Partner with UW leaders to shape an information and communications technology strategy** that advances the UW's vision of academic excellence, research strength, and global leadership that benefits the region, state, and society.
- **Improve the capability, security, and reliability of essential information management, cyber-infrastructure, information and communications technology services, and organizational structures** to meet the evolving needs of the institution and to insure the highest level of integrity, compliance, and stewardship.
- **Develop a customer-focused, customer-centric organizational structure and culture** to provide outstanding, responsive service to the university community and to strengthen partnerships and collaborations.
- **Strengthen C&C's operational excellence** to ensure that its systems and staffing support the university's mission and vision and meet the needs of its constituents. This includes C&C's financial and project management systems and practices.
- **Develop and implement a comprehensive communications plan** to enable effective two-way communication within C&C and with the UW community.

This report includes:

- An overview of C&C's strategic planning process
- A description of C&C's vision, mission, and values
- Details on C&C's five key strategic directions
- An overview of C&C's implementation plan, including actions C&C has taken to date

Inside This Report

This report emphasizes C&C's continuing dedication to delivering technical excellence in support of the UW community. More than that, it underscores C&C's commitment to making the organizational changes necessary to enable it to deliver outstanding customer service and to work collaboratively with the university community to meet the challenges ahead.

The Strategic Planning Process

The strategic planning process began with a situational analysis of C&C and the UW’s current and future operating environments. The analysis evaluated C&C’s key strengths, challenges, and opportunities, and current and future needs. The centerpiece of the analysis was a series of in-depth interviews with 160 people across the university community, including university leadership.

To help guide the strategic planning effort, C&C hired a consulting firm with broad strategic planning and organization development expertise in higher education, government, and the private and non-profit sectors.

UW Operating Environment

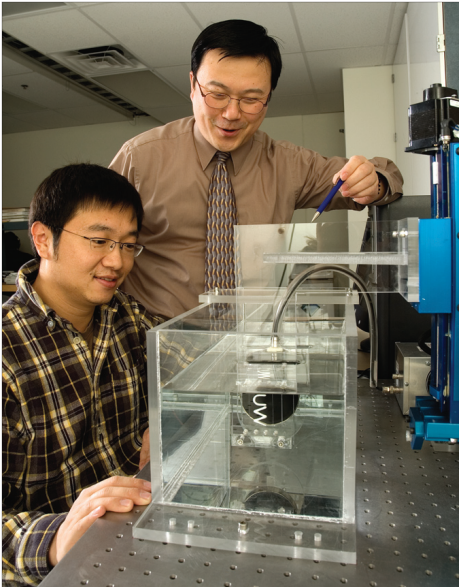
A major element of the strategic analysis was to identify key points that describe the UW’s current environment:

- **The UW is a top-tier player in higher education**, both nationally and world-wide. For a long time, the UW has been first among public universities in the U.S. in the competition for federal research and development expenditures. Recently, the UW was ranked 22nd among the best “global” universities in the world by *Newsweek* magazine, and 17th in the world in rankings published by *The Economist*. *Washington Monthly* has ranked the UW 15th among all U.S. universities in terms of benefits it provides to the country, and *U.S. News & World Report* positions the UW 11th in its rankings of America’s best public universities.
- **The UW is a “loose federation” of schools and colleges**, decentralized and entrepreneurial, yet collegial, collaborative, and interdisciplinary. Schools and colleges, medical centers and clinics, departments and research groups all operate independently. Funding is tight. Differences of opinion about priorities and spending are a natural byproduct of this environment.
- **Technology will continue to have a large impact on higher education and especially research institutions**, transforming teaching, learning, research, clinical care, management, and operations. The trend toward technological diversity and customization will continue, and service expectations will grow. High-quality, reliable, secure, adaptable, and scalable networks are critical and will become of even greater strategic value to universities.



The centerpiece of the analysis was a series of in-depth interviews with 160 people across the university community, including university leadership.





There is no “one size fits all” approach to technology solutions given the complexity and diversity of the UW.

- **The UW requires substantial computing technology, cyber-infrastructure, and information systems management and support** because of its size, stature, research activities, clinical endeavors, and dominant position geopolitically. The UW's technology requirements include:

- An advanced and sophisticated technology infrastructure that supports a large and complex national and international research environment, enables interdisciplinary research, and facilitates global partnerships
- Academic technology that enhances learning and discovery, and attracts and enables a diverse and excellent student body
- Clinical technologies that support the UW's clinical, medical, health science, nursing, dental, and public health research missions
- Administrative technology and information management disciplines and structures that support business operations, enable management decision making, and ensure the highest levels of integrity, compliance, and stewardship
- Support for information and communications technology initiatives that are critical to the UW's regional, national, and international roles and that enhance the global competitiveness of UW students and the region

- **Previous institutional strategic technology decisions at the UW have influenced the current environment.** These include decisions to:

- Create a robust, standards-based technology infrastructure through C&C activities and initiatives
- Decentralize most departmental end-user technology support
- Have C&C provide only a base level of support to departments
- Focus C&C's resources primarily on core standardized tools for supporting knowledge workers and (network) infrastructure to enable advanced research
- Enhance and sustain administrative information systems by building upon existing 'heritage' technologies rather than investing in more sweeping approaches such as enterprise resource planning (ERP)

- **There is no “one size fits all” approach to technology solutions** given the complexity and diversity of the UW, its decentralized environment, differing functional and technology needs and priorities, and uneven levels of resources to acquire and support technology throughout units and departments.

Interview Results

The most critical part of the strategic analysis was input from the university community. Nearly 100 constituents and 65 C&C staff provided insights into C&C's strengths and weaknesses. The UW president, provost, executive vice president, deans, senior administrators, computing directors, department administrators, and C&C staff were interviewed individually or in small focus groups.

Participants were asked to comment on current and future information technology challenges, C&C's present and future roles, and its performance in carrying out its responsibilities, which include providing:

- Technology and infrastructure
- Deployment, operations, and maintenance of wired and wireless university networks
- Communications technologies and collaborative tools, including email, telephones, video, streaming media, and telecommunications
- Administrative systems development, enhancement, and support for core business operations, including human resources/payroll, student, and financial systems
- Academic technology enhancement in support of teaching, learning, research, and outreach
- Video and audio distribution and interaction using current and next-generation media delivery and storage technologies
- Leadership in high-speed networking, security, distributed computing, and other technologies critical to the university's mission and vision

Participants said that C&C has strong technical expertise and has been effective in positioning the UW to be a national leader in information technology. However, they said that C&C needs to improve its business, project management, and customer service practices, be more open and transparent, involve constituents more in decision making, and communicate more effectively.

These key points emerged repeatedly in interviews:

- C&C's vision should be clearly in the context of, and in support of, the UW's vision.
- The UW needs a comprehensive technology strategy that includes information systems and information management,





C&C has regional and national roles as well as internal UW roles.



technical computing, e-Science, and cyber-infrastructure. C&C has an important role in articulating these strategic directions at the UW, but it cannot and should not be solely responsible for this effort.

- C&C has regional and national roles as well as internal UW roles. Some people support these multiple roles; others do not understand their value.
- A key C&C role is providing a strong information and communications technology infrastructure for the UW.
- C&C staff is perceived as having strong technical skills.
- Virtually all constituents want more technology, information systems, and information management support, though there is a lack of clarity across the university regarding who is and/or should be responsible for the various aspects of technology delivery.
- People generally feel the Technology Advisory Committees are a step in the right direction, but some skepticism surrounds their purpose and effectiveness.
- People identified areas where C&C could improve. There is a general sense that C&C has begun efforts to address these areas, but there is more work to do in:
 - Providing better communications with constituents, in particular increased communications about C&C's organization, strategies, and priorities; ongoing interaction during projects; and more openness and transparency
 - Engaging customers as equal partners
 - Being more flexible in considering alternate approaches to problem solving
 - Improving business, customer service, and project management practices
 - Performing organizational succession planning and mentoring

Implications

Several themes emerged from the strategic analysis that contributed to the development of C&C's internal plan. Working with its institutional partners, C&C needs to:

- **Support technology expertise and infrastructure:** A strong technology competence—centrally and throughout schools, colleges, medical centers, clinics, departments, and centers

—has contributed significantly to the university’s success. The challenge now is to maintain and strengthen the university’s position in a future of tightening resources, increasing competition, and uncertain public support. The university must continue to support the technology expertise and infrastructure required to remain competitive in an era when technology is foundational to success.

- **Better define roles and responsibilities and better enable cross-organizational partnerships and collaboration:** The pervasive and ever-changing nature of technology, coupled with the complexity of the UW’s highly distributed technology systems, infrastructure, and staff, calls for more clearly defined information and communications technology roles and responsibilities. Also needed are innovative approaches to restructuring organizations and organizational relationships to enable better cooperation, coordination, and integration.
- **Prioritize technology investments:** As technology grows more pervasive and more crucial, competition for advanced technology across the UW is intensifying. The UW must decide which technological investments will afford the largest payoff in advancing institutional strategic goals and in achieving the UW’s mission. The UW needs an overall information and communications (ICT) strategic plan to identify the full range of its technology priorities and guide investment decisions. C&C can contribute by engaging its customers in a dialogue about their needs and priorities and by providing strategic ICT leadership to university leaders and the UW’s Technology Advisory Committees.
- **Partner to find cost-effective solutions:** While institutional expectations for a strong technological foundation will continue and grow, increasingly they will be tempered by limited resources. C&C can help meet this challenge by partnering with constituents, outsourcing as appropriate, leveraging resources, and applying its technological expertise to identify creative, innovative, and cost-effective approaches for teaching, research, and administration.
- **Work collaboratively with constituents:** This era of heterogeneous computing, multiple personal platforms, and higher degrees of personal control and technological sophistication requires a collaborative and flexible approach in evaluating, delivering, acquiring, and supporting technology to meet constituent needs. C&C needs to listen to its constituents, understand the complex context in which they operate, and work in partnership with them to identify solutions that fit their needs.

The UW must decide which technological investments will afford the largest payoff in advancing institutional strategic goals and in best achieving UW’s mission.





C&C's vision, mission, and values emphasize collaboration, partnership, and customer service.

The Strategic Plan

Vision, Mission, Values

The first part of C&C's strategic plan is a new statement of vision, mission, and values emphasizing collaboration, partnership, and customer service. It reinforces the importance of working closely with constituents to understand their challenges and help them identify technology solutions that enable them to be more productive and effective. In this way, C&C and the UW community can work together to help enhance educational quality, research strength, and global competitiveness.

Vision

To partner with the UW community in creating and acquiring technology solutions that enable the University of Washington to enrich lives through teaching, research, and public service.

Mission

Through partnership and collaboration, C&C enables extraordinary achievements by University of Washington students, faculty, staff, and clinicians.

Computing & Communications:

- Delivers powerful, reliable, and secure core information and communications services that are responsive to the UW community's information technology needs
- Provides leadership in developing and implementing the information and communications technology strategy for the University of Washington
- Creates and fosters regional, national, and international partnerships that transform research and learning

Values

- **Commitment to Customers:** Satisfying customers is our primary focus. We care about those we serve, both inside and outside the organization. We are committed to delivering outstanding services to meet our customers' needs.
- **Integrity:** We act with honesty, fairness, and respect. We are committed to transparency and open communications. We hold ourselves accountable for our individual and collective actions.

- **Excellence:** We set high standards for ourselves and our work. We strive to do the right things and do them well. We continually improve our performance, our products, and our services.
- **Innovation:** We value flexibility and creativity. We respect and build upon the expertise of others. We explore new technology and approaches through teamwork, collaboration, and partnership.
- **Collegiality:** We are united in a common purpose and respect each other's contributions toward our goals. We value diversity and support each other's growth and success.

Strategic Directions

Based on information gathered in the strategic analysis, C&C has identified the following five strategic organizational development goals as its priorities for the next three-to-five years:

Goal 1. Institutional Strategy

Work with UW leadership (academic, clinical, administrative, and student) to shape an information and communications technology (ICT) strategy for the university and to clarify technology roles and opportunities. This strategy will serve to advance the UW's vision of academic excellence, discovery, research strength, and global engagement that benefits the region, state, and society.

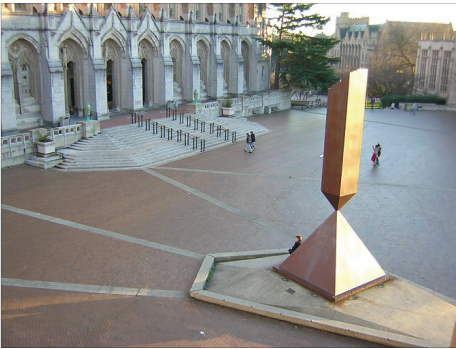
Summary: Future research will be data, computation, and visualization intensive and will involve global interdisciplinary collaboration. Enabling this will require substantial technology investment and support, and universities will need to make those investments in order to remain competitive. Better information and administrative systems, and a real commitment to information management, will also be necessary if research universities are to meet their ever increasing management challenges.

Identifying a comprehensive set of technology investment needs and priorities to sustain this type of support is always difficult in an environment of limited discretionary funding, with a wide range of needs and interests, a culture of independence among schools and colleges, and widely distributed computing, information systems, and technology staffs. That said, a clearly-defined, comprehensive ICT strategy is essential for moving forward.



C&C will work with UW academic, clinical, administrative, and student leadership to shape an information and communications technology strategy for the university.

Building upon the efforts of the Technology Advisory Committees and the Future of Information Systems Task Force, C&C will work with UW academic, administrative, and clinical leaders to develop an ICT strategy for the university. This strategy will provide a future-oriented framework to assist UW leaders in linking technology investments to a clear set of strategic priorities that address the emerging technology and information issues and challenges of the next decade, including:



- Cyberinfrastructure to support and enable research and learning
- Establishing an information management culture and structure
- Communications infrastructure for university facilities
- An increasing focus on multi-institutional regional, national, and international initiatives
- Compliance in the face of increasing regulations, particularly those related to security and privacy
- The revolution in personal platforms (e.g., mobile devices)
- Collection, management, and stewardship of digital assets
- The growth in technology staff and the growing level of technology expertise of faculty, clinicians, staff, and students
- Determining the right balance between centralization and decentralization of technology functions
- Managed and unmanaged data center space
- Technology equipment (and software) renewal
- Common enterprise-oriented versus alternative solutions
- Technology financing strategies
- Future strategic direction and investment approaches for improving administrative information systems and business practices
- The shifting place of universities in the technology marketplace

Objective: Take the lead in working with the university's Technology Advisory Committees and UW leadership to generate a process of developing an institutional strategy to guide the UW through the next three-to-five years.

Goal 2. Essential Technology Support

Provide essential information and communication technology (ICT) services and support to the UW community and ensure the highest level of integrity, compliance, and stewardship.

Summary: The task of providing ICT services across the university is critical, complex, and decentralized. Many different entities provide ICT services. C&C seeks to provide those services that are most efficiently and effectively offered centrally. The majority of colleges, schools, and departments also have their own staffs who handle a myriad of departmental ICT responsibilities.

About one-third of the UW's dedicated information technology and information systems employees work for C&C, with the rest spread throughout the university's academic and administrative departments. As the number of technology tools and areas of responsibility proliferate, confusion has increased about what services are available and who is responsible for their delivery.

Constituents expect centrally supported systems to be robust, accessible, fail-safe, and available at all hours. They need a level and quality of service and support that meet the demands of an international research and teaching enterprise. They also require services and support that meet their current and emerging needs.

Objective 1: Work with the relevant university constituencies to develop and publish a matrix that clearly delineates technology service areas and responsibilities. Where there is not consensus, C&C and constituents will work with the UW Technology Advisory Committees and UW leadership to come to agreement and seek funding to adequately support centers of responsibility.

C&C seeks to provide those services that are most efficiently and effectively offered centrally.



Objective 2: For the technology services and products that C&C delivers:

- Provide the functionality needed by the university community
- Ensure integrity, availability, and appropriate confidentiality of data
- Continue to improve systems, services, and product reliability
- Strengthen the ability of C&C staff and systems to survive disasters and quickly resume operations
- Provide centrally managed, secure, and reliable data center facilities
- Provide information and communication technology leadership to support UW's vision including regional, national, and international arenas



Delivering flexible and responsive customer service is particularly challenging in the UW's diverse, decentralized, and resource-constrained environment.

Goal 3. Customer Service

Continue to evolve a customer-oriented organizational structure and culture.

Summary: Delivering flexible and responsive customer service is particularly challenging in the UW's diverse, decentralized, and resource-constrained environment. The following objectives will enable C&C to fulfill its commitment to outstanding customer service and to strengthen partnerships and collaborations:

Objective: Institute a customer-oriented culture, led and driven by executive management and implemented across the entire organization by:

- Ensuring that C&C's mission, vision, and operating principles are aligned with those of the institution, and fully embraced within all C&C units
- Measuring success against a well-understood customer baseline expectation
- Providing customer service coaching and training throughout C&C

- Instituting organization-wide customer service planning, policies, and practices to ensure consistent and responsive customer service across organizational boundaries
- Restructuring the organization to enable better customer service

Goal 4. Operational Excellence

Strengthen operational excellence to ensure that C&C's systems and staffing meet the needs of constituents.

Summary: Consistent, reliable, and responsive customer service requires a solid foundation in project management, cost accounting and financial management, administrative processes, and staffing. The following objectives are focused on building the organizational capacity in these areas:

Objective 1: Define and implement consistent and reliable project management practices. These include:

- Developing and using common project lifecycles, planning practices, and estimating efforts
- Determining appropriate staff, hardware, and other resources required for each project

Objective 2: Adopt financial management practices that ensure accountability and improve decision making. These include instituting:

- Management and accounting practices that enable reporting and analysis of costs associated with services and activities
- Accounting practices that enable the definition and management of indirect costs
- Methods for setting rates and prices that are clear and understandable
- Methods for defining, categorizing, and clearly communicating the difference between core services and those subject to recharge
- Financial reporting practices that optimize resource planning
- Billing practices that are efficient, timely, cost effective, and that can be understood by interested parties

C&C will adopt financial management practices that ensure accountability and improve decision making.



Objective 3: Adopt internal administrative practices that improve efficiencies and enable organizational leadership to make informed decisions by:

- Documenting internal policies, procedures, guidelines, standards, and decision-making processes
- Prioritizing work activities across the organization
- Implementing ongoing planning and monitoring



Objective 4: Hire or train people to have the skills to support current and future information and communications technology (ICT) requirements by:

- Developing and maintaining an ICT recruitment program that incorporates current skill assessment data with predicted staffing needs
- Establishing high standards for performance accountability
- Encouraging, valuing, and rewarding professional excellence
- Providing opportunities for career development, growth, and continuous challenge
- Fostering an environment of collaboration, communication, and teamwork

A communications plan must include ways to increase transparency, promote understanding, and encourage dialogue.

Goal 5. Effective Communications

Develop and implement a comprehensive communications plan to enable more effective communication within C&C and with the UW community.

Summary: Effective communication is essential for understanding and responding to the diverse needs of the UW community and for achieving the goals of this plan. A communications plan must include ways to increase transparency, promote understanding, and encourage dialogue. Toward this end, C&C's communications practices will be designed to:

Objective 1: Engender trust in, respect for, and understanding of C&C's contributions, roles, and services by:

- Making transparency, open communication, and collaboration a commitment embraced by C&C management and the entire organization
- Ensuring that all major C&C communications efforts are consistent, clear, and customer-focused
- Identifying the appropriate constituencies for all major C&C communications efforts, engaging them in dialogue that encourages their ideas and feedback, and responding to their input

Objective 2: Foster a shared understanding of the UW technology environment by:

- Showing how C&C's partnerships, projects, and services advance UW's mission
- Explaining C&C's roles, services, resources, and technology tools
- Establishing and following an interactive communications process for technology changes, directions, and decisions
- Educating the community about how technology trends affect the UW's technology environment

Objective 3: Empower all staff to be effective ambassadors for C&C by:

- Enabling staff to feel part of a team working to achieve C&C's overall mission, vision, and goals and to understand how their work fits in
- Promoting the use of effective communication and collaboration skills
- Enabling staff to take pride in what C&C does in support of the UW and to share success stories





Implementing the Plan

C&C will implement its strategic plan over the next three-to-five years. In the first year of implementation, 2006-07, C&C is devoting special effort to making significant progress in four areas identified in our Strategic Directions. The senior leadership of C&C selected these areas based on their potential for providing clear and immediate value to our constituents, as well for laying the groundwork for the long-term operational changes necessary to improve our service.

2006-07 Priorities

Customer Service

To provide a consistent high quality customer service experience across the organization, C&C created a Service Delivery and Support division early in 2006 to integrate technical operations and customer service staffs that were spread across several divisions. Customer service improvements already underway also include establishing a single point of contact to make it easier for customers to get help, and implementing a new customer request-tracking system to better track and respond to customer requests across organizational boundaries.



Over the next year, C&C will:

- **Develop and administer a customer service survey** that will provide valuable feedback and establish a baseline for tracking customer satisfaction over time
- **Develop consistent customer service performance standards** for all of C&C
- **Provide customer service training** throughout the organization
- **Develop service lines** to describe C&C's services in a logical, user-friendly way and to improve internal planning efforts

Communications

Over the next year, C&C will:

- **Provide an up-to-date C&C organizational chart**
- **Launch a comprehensive communications planning effort** to improve C&C's two-way communications with the UW community

- **Improve C&C's Web presence** to make information about C&C services, resources, and people more accessible, easier to find, and user friendly

Project & Financial Management

C&C has initiated improvements within Administrative Information Services (AIS), now within the Office of Information Management, to better meet the needs of C&C business partners. These include realigning the organization to improve coordination, implementing an effort reporting system that accurately tracks staff effort to enable better project planning and estimating, and establishing a project management group to facilitate better planning and project management.

Over the next year, C&C will:

- **Initiate product and service lifecycle planning** to establish consistent processes for developing and enhancing products and services across C&C and for seeking customer input
- **Develop consistent project management practices** for all of C&C to ensure that projects are on time, on budget, and meet customer expectations
- **Adopt organization-wide financial management practices** that ensure that C&C management and constituents have the information they need to make informed decisions regarding C&C services. This includes reviewing C&C's current cost accounting and financial reporting systems and making improvements as necessary.

Reliable and Responsive Systems

Over the next year, C&C will:

- **Develop change management** processes for C&C services to ensure that changes are well communicated and do not disrupt current services
- **Develop consistent incident response procedures** across C&C to alert customers to problems, coordinate our response to outages and service disruptions, and share lessons learned to prevent reoccurrence
- **Improve tools that monitor and identify outages**

Ensure that C&C management and constituents have the information they need to make informed decisions regarding C&C services.



Ongoing Implementation and Assessment

On an annual basis, C&C will identify priority areas, develop operational plans that detail how the goals will be achieved, and track and evaluate progress toward meeting those goals. C&C will publish its operational plans and progress reports on its Web site.

In addition, C&C will continually reassess its strategic directions and tactical objectives and make adjustments as necessary to respond to changes in technology and in the university's environment. As part of this effort, C&C will continually seek input from people in the university community to make sure that it is effectively working with them to help them achieve their most important goals.

