

University of Wisconsin, Madison
External Information Technology Review Committee

March 6th – 9th, 2006

Preface:

This report represents the observations of an external review committee consisting of three CIOs, a CFO from a major research university, and a CEO of a private sector company. The Committee met with a large number of constituent groups and stakeholders over 2 days as outlined in attachment A.

Enclosed in this report is a set of observations and recommendations that the Committee believes UW Madison should consider as it restructures its CIO position in preparation for the recruitment of its next CIO.

The team reviewed the institutional environment for IT, but did not review the performance of particular individuals. While the report may sound critical at times, the findings and recommendations are not criticisms of the incumbent CIO. The Committee feels the incumbent has been very effective in moving the Madison campus in a positive direction in many IT areas, which is impressive in light of the structural and external issues over which she has not had control.

The recommendations in this report represent strong consensus of the individuals with whom the Committee met. A particular area where there was some debate was whether the current central IT organization (DoIT) should be part of the portfolio of the new CIO position. The Committee feels that the best person for the new CIO position will view the current central IT organization as one of many resources to leverage to improve IT services and infrastructure of the entire Madison campus. To not allow the new CIO to have authority over these resources would hamper recruitment of a CIO, and make him/her less effective in introducing positive change at the Madison campus.

There are complexities existing at Madison that do not exist for most research universities due to the unique relationship between the Madison campus, the UW system, and the State of Wisconsin. These complexities must be taken into account in considering significant changes to the current environment.

Top Two Opportunities for Action:

During two days of meetings and interviews by the External IT Review Committee, two overarching themes rose to the top – (1) problems with the current DoIT business model for the campus, and (2) the lack of a campus IT governance structure. The current business model forces DoIT to recharge for many activities that should be included in services that are part of the core IT services for the campus. This practice has created an adversarial relationship between DoIT and its current and potential customers that drives many of them to develop duplicate services and to be uncooperative.

Our committee could not decipher the campus IT governance structure even though we asked for explanations from many members of committees who should understand it. Either it is not transparent or it does not exist for many campus-wide processes.

Observations and key findings:

- DoIT provides a wide range of information technology services to the Madison campus, to the University of Wisconsin System Office, and to many other campuses throughout the system. The organization has improved its services significantly in the past several years.
- Senior DoIT staff members play leadership roles in regional and national information technology organizations such as the CIC, Internet2, the Common Solutions Group, and EDUCAUSE. They are leading the formation of the Northern Tier Network Consortium, a new optical network that will extend high performance networking capabilities throughout the northern U.S. border west of Lake Michigan.
- Like many other large research universities, the Madison campus has a highly decentralized computing environment and a weak IT governance structure. This combination makes it very difficult to develop campus-wide priorities and strategic plans and to implement campus-wide services. There is a significant lack of many important campus standards. This situation leads to overlaps and gaps in IT services and to a significantly higher overall campus cost.
- The 21st Century Network Project is an example of what can be accomplished when campus leaders decide to work together to achieve a common goal. The resulting networking infrastructure is state of the art and the complementary funding model is scalable, transparent, and in use at several other major universities.
- The position of CIO on the Madison campus has evolved from the role of Director of DoIT without a significant high-level review of what the responsibilities of the office should be, where it should report, and how it should be staffed. Several

individuals with whom we met are concerned that the scope of the office and its reporting structure should be modified to reflect the realities of the future IT environment that the University wants to create.

- There is a lack of transparency in the DoIT budgeting and priority setting processes described by many individuals who are involved in various campus IT advisory committees.
- There is no campus IT strategic plan and there are few on-going IT performance metrics.
- The charge-back funding model utilized for many services causes a significant amount of frustration and ill-will for most users of DoIT services.
- DoIT is not supporting all missions of the University. Specifically many individuals reported that research activities are not well served.
- Security threats to IT environments continue to escalate throughout the world, and the university must continue to be vigilant to protect itself against these.
- The committee did not have the opportunity to meet with many students during our visit. However, from what we learned, they are very interested in expanding the IT services that are available to students, having more uniformity in classroom use of technology, and in simple improvements such as online lists of required textbooks for all classes.

Recommendations

- **CIO Reporting Relationship and Title:** In order to attract the best candidates for this position and to provide for the optimal interaction with the Chancellor and the cabinet, the CIO should report directly to the Chancellor and have the title of Vice Chancellor and CIO.
- **CIO Role:** The CIO should have a leadership role in recommending and deciding what campus-wide IT projects should be undertaken. A major focus of the position should be organizing and leading collaborations among the many decentralized IT units on the campus.
- **CIO Position Description:** The CIO's position description should emphasize key roles in:
 - Serving the instruction, research, and enterprise systems needs of the Madison campus.
 - Serving as a leader between central systems staff and the department and college systems staff in order to leverage the talent throughout the campus.

- Support and work with the UW system to the extent that it supports the strategic IT goals of the Madison campus.
- **Governance:** The IT advisory committee structure should be completely revised, strengthened, and reconstituted. Several individuals recommended that the current set of committees should be disbanded. The campus IT governance structure should change from a feudal structure, where each organizational unit independently builds systems and sets priorities, to one that is more like a federated model where there are clear guidelines and a shared understanding about which services are central and which should be local.
- **Strategic Plan:** The campus is suffering from not having clear IT priorities (among an endless wish list of possibilities) and well-defined lines of the programmatic responsibilities for the CIO's office. Leaders representing the instruction, research, and administrative needs of the campus should draft an IT strategic plan that is based on the Madison campus strategic plan and that:
 - Defines "core" institutional systems that should be provided to the campus by the CIO's office, as well as important, but "non-core" systems that can be better managed by departments, other campus units, and potentially by outside vendors, and;
 - Outlines institutional priorities for instructional support, research infrastructure, and enterprise applications that have assurances that they will be implemented and supported on an on-going basis.
- **Business Model:** A new business model should be created that supports the strategic plan. This model should eliminate the "charge back" associated with any service identified as "core" in the strategic plan. The business model should establish periodic performance metrics of the CIO's office to ensure that stakeholders and customers are satisfied with IT services, and that functional, financial, and timeline objectives are being met.
- **Security and Authentication:** Special attention should be given in the strategic plan to implement appropriate system security throughout the Madison campus, and to successfully complete the single sign-on project for student, faculty, and staff access to systems.
- **Business Continuity Planning:** The CIO's office should coordinate, along with major academic, administrative, and research leaders an on-going set of activities that will enable the Madison campus to resume its core activities after a significant unanticipated disaster strikes the campus. The increasing reliance on networks and digitally stored information makes such emergency planning a necessity.
- **Enterprise Systems Orientation:** The development and enhancement of enterprise systems such as the financial system, human resources, student systems, should

recognize that in a decentralized environment, such as exists on the Madison campus, most administrative costs and labor occur in departments and other units outside of central administrative offices. Those systems should rely on business processes that are streamlined from the point of view of the end users and departments.

- **Classroom Technology:** There should be a team formed consisting of staff from the Facilities department, Enrollment Management, and the CIO's office to improve coordination and communication of the availability of instructional technology tools in classrooms.
- **Communications:** More effective communications between the central IT organization and end user offices will be critical to the success of the new environment. First, it is important to ensure that the user community receives timely and effective notice about, and has the opportunity to give input to key decisions about IT project development priorities and timelines. Secondly, there must be a concerted effort on the part of the central IT organization to reach out to user offices - particularly the academic units, many of whom feel abandoned in the current environment, to understand their needs and to leverage the University's total IT investment in addressing them.
- **Culture:** The new CIO will need to change the University's IT culture from one of confrontation to one of cooperation and collaboration. Specifically, the CIO needs to become the champion for the IT needs of the entire University and not be perceived as being primarily concerned about DoIT and its customers. The University's distributed IT organizations in turn need to look for ways to work with each other and the central organization when it is advantageous. Specifically, they should look for ways of eliminating duplication within their units so that the University's total investment in IT can be most effectively leveraged to address the broadest possible agenda.

Summary

Information technologies change rapidly, but the organizations universities build to coordinate and implement them evolve much more slowly. The University of Wisconsin, Madison is currently at a unique point in time when it can redesign its IT governance structure to take advantage of the great innovations that flow from its research infrastructure while at the same time gaining significant economies and higher user satisfaction levels by deciding which services should be provided to all units and how these core services can best be delivered.

The role of the CIO on the campus was never previously defined; it evolved as part of the portfolio of duties of the director of DoIT. Madison now has the opportunity to examine what works well, and not so well, in its culture and to create a new set of responsibilities for its new campus CIO. High priority should be given to finding a calculated risk taker

who is dedicated to collaborating with, and empowering the great pool of IT talent that exists throughout the campus. The search committee should consult broadly internally and meet with many of the committees with whom we met, and it should also seek the advice of University partners in the private sector. Now is the time to create a new role of campus CIO that fits the culture and the strengths of the Madison campus.

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Appendix A: Meeting Schedule for the Committee

Virginia Sapiro, Interim Provost
John D. Wiley, Chancellor
Darrell Bazzell, Vice Chancellor for Administration
Annie Stunden, CIO, DoIT
Information Technology Committee (ITC)
DoIT Associate CIO's
CIO's from other UW Campuses & UW System CIO
DoIT Operations Directors
DoIT Senior Staff
DoIT Managers
Madison Technical Advisory Group (M-TAG)
Open Session for DoIT staff
Academic Deans and their IT Representatives
Director of UW Libraries with Technical Staff
Associate Vice Chancellor for Enrollment Management & Registrar
Undergraduate Admissions
Student Financial Services
Integrated Student Information System (ISIS)
Bursar
Associate Deans for Research
Business Services
Facilities Planning & Maintenance
Human Resources
University Housing
Committee on Educational Technology Services (ComETS)