

Standard IIIC. Technology Resources

Technology resources are used to support student learning programs and services and to improve institutional effectiveness. Technology planning is integrated with institutional planning.

IIIC-1. The institution assures that any technology support it provides is designed to meet the needs of learning, teaching, College-wide communications, research, and operational systems.

Description

College technology resources support the College's learning programs and services by providing students, faculty, and staff with appropriate hardware and software based upon instructional, student services, and other professional needs of users. The chief organizational unit that supports technology for the District is the Technology and Information Systems Division (Item IIIC-1), the chief administrator of which reports directly to the Superintendent/President. Since the 2005 accreditation visit, the District has reaffirmed its commitment to its technology resources by creating an Executive Dean position to oversee all administrative and academic computing operations under a single entity from network infrastructure, to management information systems, customer service, support and training. In addition, several major technology projects have been funded in order to update end-of-life campus systems, streamline workflows, and enable access for students to online instruction and services.

College technology needs are identified within departments and divisions, using the annual program review and planning process (Item IIIC-2). To further assist with planning and informed decision-making about the College's technology needs, a technology committee was formed as part of the participative governance system (see Administrative Procedure 1201; Item IIIC-3). The committee is comprised of full-time and adjunct faculty, students, classified staff, and management. The stated purposes for the technology committee are as follows:

- Provide recommendations to enhance, improve and expand communications including telephone, direct contact to campus users and emergency.
- Recommend policies and procedures regarding campus technologies.
- Monitor the adequacy of technology platform to support instruction, students and staff.
- Develop campus-wide technology plan and provides oversight for plan implementation and success. (Item IIIC-8)
- Monitor and assess campus-wide technology distribution and support in line with end- user needs.

In March 2008, the College engaged PlanNet Consulting to conduct an enterprise-wide assessment of its information technologies. Over a period of 16 weeks, PlanNet conducted a series of surveys and interviews with College management, faculty, and staff, as well as gathered and analyzed various technology documents. The results of the analysis were summarized in report (Item IIIC-4) which was used as a basis for re-evaluating the campus technology needs and will be used in the formulation of a District technology plan.

The Technology Committee evaluates on an ongoing basis the College's effectiveness in meeting the range of identified technology needs and makes recommendations to the Superintendent/President. Because the committee is comprised of different constituencies represented across the campus, it serves as a representative forum in which to discuss and evaluate whether or not campus technologies are effective. In addition to the Technology Committee, information technology staff members evaluate effectiveness of technology as it relates to campus-wide infrastructure needs, while end users across campus evaluate the effectiveness of technology in facilitating their meeting needs, both on an ad hoc basis. and on an annual basis using established program review, planning, and resource allocation process (P.R.A.I.S.E.; Item IIIC- 2).

Although there are many needs identified in the PlanNet report (Item IIIC-4), there have been improvement and progress to address some of the deficiencies identified.

IIIC-1a. Technology services, professional support, facilities, hardware, and software are designed to enhance the operation and effectiveness of the institution.

Description

Given that almost all members of the College workforce are dependent upon its information technology systems, decisions regarding technology acquisitions, use, support, and improvements are designed to be vetted through the College's participative governance procedures (Item IIIC-2).

However, decisions about technology and professional support often start with individuals and departments identifying a need to support a current or new activity. Depending on the type of need, a decision regarding hardware and software may be made by an individual department without consultation with other departments potentially impacted by the new technology. For example, non-networked printers, instructional software, USB flash drives, or digital cameras are items often acquired without consideration of impact on campus infrastructure. If the hardware or software acquired has the potential to negatively impact the campus network or its support function, the information technology department in consultation with the technology committee will make recommendations to remediate or ameliorate that impact on current operational support systems.

In 2004, the College adopted Blackboard© as its learning management platform for its distance learning courses and programs. According to the PlanNet report, Blackboard performance and capabilities are generally regarded as suitable to the College's needs. However, that is not to say

there are no opportunities to improve. A combination of issues, including lack of training or distance education coordination, has hindered smooth adoption of Blackboard© across campus. Recently, a Distance Education Coordinator was recruited from among faculty and is working closely with the faculty and staff to develop better standards for distance education and online activities. A survey was distributed to faculty in November 2010 to gather information that will facilitate the improvements necessary to campus technology and support for its online instructional program.

In recent years, major improvements to the campus network have been addressed. This overhaul started with the most critical parts of the network, and is slowly expanding to the rest of the network. For the most part, the network operations center has been updated to provide increased system redundancy and storage. In addition, consideration for an environmentally friendly (or green) solution has been used. Even with this recent overhaul, much of the campus infrastructure is very old and no longer under warranty. For example, hardware at the edge of the network is 10 to 13 years old. The fiber network currently in place was installed in an ad hoc manner, often one section in one building at a time, without the benefit of a comprehensive overarching plan. The age and lack of standards for the fiber network makes management of it quite difficult.

Several projects are in progress which will enhance the instructional and operational needs of the campus:

- In the final stage of purchasing additional storage and disaster recovery capability to ensure business continuity in the event of catastrophic loss of data and systems. Ultimately, this system will be located off campus at the new Eastside Center and will provide a level of redundancy for both the main campus and the Eastside Center.
- In the final stage of surveys for identifying campus fiber and low voltage infrastructure. This is in preparation for replacement of the campus fiber network.
- The Technology and Information Systems Division is involved in a campus migration from the current Novell© network to a Microsoft© environment. This change was predicated by a number of other enhancements that are better served by using a purely Microsoft© environment.
- The Datatel Colleague System©, the College's enterprise resource platform, is undergoing a number of upgrades in terms of hardware, software, applications, and user training. Most recently, the dedicated server was enhanced with newer processors. Future plans are to move from Datatel's© proprietary (Unidata) environment to a SQL environment supported by Microsoft© systems and applications. The campus is currently reviewing a plan to review campus business processes across campus, apply best practices, and conduct training for improved use of this core system.

All faculty and staff workstations are configured to save data files to District servers, which have regularly scheduled backups. The District has provisioned a storage area network, which provides a high degree of fault tolerance to assure that service quality meets the demand for high availability required to support business and academic computing requirements. Key campus information systems, including Datatel©, are backed up nightly.

IIIC-1b. The institution provides quality training in the effective application of its information technology to students and personnel.

Description

Information technology training needs require short term tactical and operational assessment, as well as long-term assessment and planning. Technology training is an identifiable strategic planning goal in the educational master plan (Item IIIC-5; page 8, #5. Effective Technology Integration):

“The College will integrate and utilize technology and provide quality technological training for the creation and delivery of instruction, support of programs and services, and the improvement of institutional effectiveness to enhance student learning.”

The College assesses the need for information technology based on current trends in the technology industry, and on what is required to accomplish business and academic computational tasks in support of the District mission.

To meet its goals, the District has offered staff development workshops, along with online, on demand resources staff can use for self-paced training (Item IIIC-6). IT staff members are trained as the need arises. The needs of the faculty have been identified via ad hoc requests and through various meetings. Recently, a number of training sessions were offered to College workforce members based on the greatest need for training throughout the campus. The training seems to be effective for those who attend. Training is conducted in a group environment but has not been generally accepted. Much of the requests have been to have individual training, which cannot be accommodated due to limited resources.

IIIC-1c. The institution systematically plans, acquires, maintains, and upgrades or replaces technology infrastructure and equipment to meet institutional needs.

Description

The College’s technology acquisitions in recent years have been driven by funding. That is, as resources become available (e.g., grants, gifts, bond money), identified technology needs are funded. Because no obsolescence cycle has been established, technology replacements are prioritized by age. The College’s most recent technology planning document is incomplete and at least 6 years old. An updated plan is currently in development.

IIIC-1d. The distribution and utilization of technology resources support the development, maintenance, and enhancement of its programs and services.

Description

Technology is widely used and distributed across the campus, with over 2300 computers on campus. Currently, the distribution process is based on resources available and need. Requests are made through an incident reporting system. A Technology Plan (Item IIC-8) is being developed at this time and is in a draft version. It is expected to be completed before the end of Spring 2011, and will identify system and computer requirements to meet the operational and instructional needs of the College. In addition, a key component of the plan will be the identification of annual computer requirements.

Security of the College's technology infrastructure is an area under constant review. In the past, the College has not consistently maintained the infrastructure following industry best practices. Moreover, the campus-wide technology assessment conducted by PlanNet in 2008 identified a number of issues related to network security (the details of which are reported under standard IIC-2). Although formal acceptable use guidelines have been adopted and are enforced, other policies and procedures are still in process.

With respect to the College's distance education programs, Blackboard© has been selected as the campus application for the distribution of online courses. Other distance modalities include video-conference, the equipment for which was moved to a new location, with new equipment purchased to meet future needs of the campus.

IIC-2. Technology planning is integrated with institutional planning. The institution systematically assesses the effective use of technology resources and uses the results of evaluation as the basis for improvement.

Description

The College utilizes an annual program review and budget development process to identify, among other things, technology resource needs. Using established participative structures and processes, those needs are prioritized and recommendations are put forward.

Evaluation, Standard IIC

Standard IIC-1. Through program review along with data provided by the research office, the College's technology needs can be identified. Requests are vetted through various committees, teams, and operational meetings. A formal prioritization process has not been formulated, but is being developed as part of a technology planning document. Currently, process to evaluate these needs is based on ad hoc user requests, and through various meetings and discussions. An incident response system is used to identify campus needs, and monitor remediation of issues.

While the College has made progress towards identifying opportunities for improvement, this is a dynamic and changing environment, and therefore is regularly reviewed.

A focus is maintained on the core functions of instruction and support for students. The College strives to strike a balance between providing an open educational environment and providing the appropriate level of network security for all users..

Standard IIC-2. The campus-wide technology assessment conducted in 2008 should be considered for integration into the College's planning efforts. The assessment resulted in a comprehensive set of recommendations, some of which have been implemented and others that have not due to a lack of resources. Some of the recommendations that have been addressed include:

- Hiring a chief information technology officer (Executive Dean of Technology and Information Systems).
- Unifying the Information Technology, Management Information, Instructional Media Service, and Telecommunications Departments within one functional and operational CIO of Technology.
- Enhancing core network technologies and enterprise resource platform (iDatatel Colleague ©) to provide enhancements and redundancy.
- Developing and approving of a computer use policy.

As stated earlier, technology support is a dynamic environment that requires changes almost from day-to-day. This will always create opportunities for improvement and therefore is a constant process. Opportunities for improvement include the following as a primary focus:

- Maintaining an effective balance between the resources available and the needs of the campus.
- Placing instruction and its associated activities as the primary support goal.

The following are a number of areas and findings that were identified in the 2008 campus-wide technology assessment in the areas of infrastructure, business continuity, technical services organization/staffing, IT services, application performance, and registration. These following are the areas that were identified as needing remediation: Infrastructure, Business Continuity, Technical Services Organization/Staffing; Technology Services and Support; Application Performance; Registration. Using established participative processes, these areas will be discussed, analyzed, prioritized and implemented as necessary.

Summary of Opportunities for Improvement, Standard IIC

While much progress has been made to improve campus technology resources and systems in recent years, many items identified in the campus-wide technology assessment conducted by PlanNet in 2008 are yet to be prioritized. The Technology Plan must be updated to ensure that technology resources support College priorities.

Planning Agenda, Standard IIIC

Commencing Spring 2012, the Superintendent/President will make certain that the College's Technology Plan is updated, implemented, and evaluated to ensure its alignment with the Educational Master Plan (Standards IIIC-1c and IIC-2).

Evidence in Support of Standard IIIC

- Item IIIC-1. [P.R.A.I.S.E. Website](#)
- Item IIIC-2. [Administrative Procedure 1201, Shared Governance Structure & Responsibilities](#)
- Item IIIC-3. [Board Of Trustees Minutes, February 12, 2008 \(Item 10.1\)](#)
- Item IIIC-4. [Campus-Wide Technology Assessment, June 13, 2008](#)
- Item IIIC-5. VVC IT Catalog of Services
- Item IIIC-6. [LiveTime](#) (online work order request system)
- Item IIIC-7. VVC IT Service Level Objectives
- Item IIIC-8. Campus-Wide Technology Plan (draft)
- Item IIIC-9. Telecommunication/Technical Staff Meetings Agenda and Minutes
- Item IIIC-10. Instructional Media Services/ Staff Meetings Agenda and Minutes
- Item IIIC-11. Divisional IT Staff Meetings Agenda and Minutes
- Item IIIC-12. MIS Staff Meetings Agenda and Minutes
- Item IIIC-13. Help Desk Staff Meetings Agenda and Minutes
- Item IIIC-14. Status Meeting Agenda and Minutes
- Item IIIC-15. Administrative Procedure 3720(a), Computer Use – Communication and Electronic Communication Systems
- Item IIIC-16. Administrative Procedure 3720(b), Computer Use – Email Procedures
- Item IIIC-17. Technology Training Classes