Appendix D

Memo on Information Technology Plan (FY 2008-2010)

Northern Marianas College

COLLEGE COUNCIL

PO Box 501250, Saipan, MP 96950

October 06, 2008

MEMORANDUM

TO: **President**

FROM: **Chair**

SUBJECT: **Information Technology Plan (FY 2008-2010)**

It is my pleasure to submit to you, the Information Technology Plan (FY 2008-2010). The IT Plan was prepared by the IT Department and was discussed and adopted by the College Council last Friday, October 03, 2008.

The IT Plan addresses WASC Team Recommendation 1, *"The college should review existing planning processes..."* and also supports PROA SEMP Goal 4 relative to technology infrastructure. The e-copy of the IT Plan will be distributed throughout NMC, including Saipan campus and the two instructional sites, Rota and Tinian. A hard copy will be placed in the WASC Room as well.

Please let me know if you have any questions.   .

Felicitas "Tee" P. Abraham

Attachment: Information Technology Plan, FY 2008-2010

Copies to: Members, College Council

Information Technology Plan

FY 2008 – 2010

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Executive Summary

This document provides a planning framework for utilization and development of technology at Northern Marianas College. It describes the mission, structure and operations of the *Information Technology Department*. It describes the strategic goals, operational direction, and objectives for technology development at the college over the next two years. It describes a plan for future deployment of technology at Northern Marianas College, which is focused on enriching the learning experience for students and improving the college's business processes. This plan also outlines an outcomes assessment process that monitors key business processes and services. This plan has been prepared by the staff and faculty of Northern Marianas College under the direction of the Technology in Education Committee (TEC).

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1. Mission Statement

The Information Technology (IT) mission is to provide support and leadership in the effective use of information technologies for the advancement of the educational mission of Northern Marianas College. IT serves students, faculty, and staff by providing support, instruction, and access to information and technology in order to enhance student learning, promote professional development, and support assessment and technological improvement at NMC.

2. Information Technology Department

The IT department staff currently consists of nine full-time employees with professional degrees, certifications, and training. In addition to these employees, the IT department typically employs several work-study students on a 20 hours per week basis during the academic year. These work-study students assist primarily in tech support roles and computer laboratory monitoring. Work-study assignments have provided valuable practical experience and education to college students with interests in computer technology.

The Information Technology Department is headed by the Office of the Director, which provides direction and supervision to the three units: Learning Technology, Information Services, and Media Services. A description of the functional responsibilities of each unit is provided below.

2.1. Office of the Director

The Office of the Director of IT is responsible for leadership, planning, budgeting, and administration of all three department units and projects. The Director provides technology leadership college-wide as a member of the College Council, as chair of the NMC Technology in Education Committee (TEC), and as a member of other NMC committees. The Director is responsible for technology-related grant writing and the management of grant projects.

2.2. Learning Technology

The Learning Technology (LT) unit is responsible for providing instructional technology resources for students and faculty. Responsibilities include developing programs that promote technology enhanced learning and providing reliable educational-technology services to students, faculty, and staff. Faculty utilization of learning technology is supported with instructional design assistance, technology training workshops, and multimedia production assistance. Support for the classroom includes providing notebook computers to all requesting instructional faculty, providing wireless Internet connections throughout the campus, and providing digital projectors in most classrooms. In addition, learning technology develops and maintains all instructional computer laboratories on the campus.

The Learning Technology Center is located in Building V and provides training to faculty and staff so that they may effectively utilize developed technology to support their jobs.

This unit provides installation, testing, and maintenance of all instructional software and technology including NMC Online (Moodle), Elluminate Live web-based communications, and Video Teleconference System (Polycom). These systems will be used to develop the college's distance learning program. Furthermore, the unit is responsible for the management of all college Internet-based informational and instructional resources. The unit maintains the NMC public website (www.nmcnet.edu) and works with faculty and other college personnel in the development of web-based content to make the website more user friendly and student focused.

The unit also has computer labs to provide facilities to support students and faculty in carrying out educational, instructional, and academic objectives. The unit maintains new PC and Macintosh computer systems capable of running the latest software for business, industry, and education. On Saipan, six fully equipped computer classrooms and one open-lab for students are maintained. The unit also supports the computer enrichment center on the Rota and Tinian Instructional sites. On Saipan, one additional computer lab is maintained for distance education courses.

2.3. Information Services

The Information Services (IS) unit develops and maintains the technology infrastructure of the college, which includes desktop systems, servers, and network infrastructure. IS provides support services for the college web, email services, Internet, intranet, administrative system, and instructional servers.

This IS unit is responsible for managing the campus data and network infrastructure as well as the computer workstations used by faculty and staff. The IS unit is responsible for data security which includes firewall protection, data backup, and antivirus protection. Furthermore, the IS unit supports the core applications for the Admissions and Records Office, Finance Office, and Financial Aid Office.

The IS unit provides a help desk system and serves as the single point of contact for faculty, staff, and students to get assistance with all technology needs. This unit also supports and maintains the instruction computer labs and the open computer lab, which provides students open access to general computing resources.

2.4. Media Services

The Media Services serves the college community by providing video production services to support classroom instruction and video recording of important college events. Video production is accomplished with the latest digital video equipment and professional Macintosh hardware and video-editing software. The unit also provides and maintains audiovisual equipment for the college's instructional facilities, which include computer projection systems, opaque projection systems (Elmo), and video projection systems.

3. Technology in Education Committee (TEC)

The Technology in Education Committee functions as a steering committee and provides a forum for addressing issues and developing technology at the college. This

committee is composed of students, faculty, and staff from all constituency groups and was formed in 2001.

The committee assists with technology planning, advancements, applications, policies, standardization, and end-user competencies. TEC provides input to the college in terms of software needs and hardware needs, and assists in prioritizing projects for budgetary support. TEC establishes the educational and business needs of the college community for technology.

4. Strategic Goals and Objectives

This technology plan was developed to support **Goal 4 of the PROA College Strategic Plan:** Accelerate the upgrade of physical and technology infrastructure.

This technology plan was developed using information contained in the college's IT audit report. This plan has been prepared by the staff and faculty of Northern Marianas College under the direction of the Technology in Education Committee (TEC) and Information Technology Department. Objectives were developed based on college community needs, emerging technologies, latest industry standards, best practices, and stakeholders' expectations.

Five major initiatives have been developed to support the College's Strategic Plan and represent a technology development plan for the college. These initiatives will be supported through college budgets, grant funds, and allocation of human resources.

1. Implement a comprehensive information technology system.

2. Improve information technology infrastructure.

3. Enhance technology support for teaching and student learning.

4. Establish organizational technology policies, procedures, and budget.

5. Develop a distance education plan.

Supporting objectives have been developed for each of these five initiatives. Details are provided for each supporting objective on the *Operations Plan* document. The operations plan will be updated quarterly and describes project responsibilities, timeline, resource allocation, and prioritization.

4.1. Implement a comprehensive information technology system

Use technology to consolidate the college's informational/data gathering activities, processes and workflows into convenient easy-to-use organization-wide systems. This will improve the effectiveness and efficiency of the institution, minimize data redundancy, and allow secure access to data by required personnel. The long- term goal is to develop a unified enterprise database system and minimize the number of databases on campus.

Supporting Objectives:

1. Upgrade and Implement the student information system (PowerCAMPUS): Admissions/Records, Billing/Cash Receipts, Powerfaids, Portal, Advancement, Self-Service modules.

2. Implement the Human Resource Management System.

3. Implement a Fixed Asset Management System.

4. Integrate financial information with other data as needed.

5. Upgrade and implement a comprehensive help desk system.

6. Make available a content management system to the college.

4.2. Improve information technology infrastructure

Information Technology will develop and manage technology (hardware, software, connectivity, and power source), technical support infrastructure, and an enterprise system to achieve secure, reliable, and flexible systems.

Supporting Objectives:

1. Develop/Implement a network plan to upgrade or replace existing network hardware.

2. Replace the existing administration email system with the Microsoft Exchange 2007 Server

3. Upgrade the student email system.

4. Upgrade the Primary Domain Controller to the Windows 2003 Server Enterprises.

5. Implement a Cache Server.

6. Procure a dedicated file storage server for the purpose of archiving and storage of critical college data on storage medium for on-campus and off-campus storage.

7. Acquire additional bandwidth to provide increased access to the Internet.

8. Upgrade Wireless Connectivity within the Campus (Secure, Increased signal and coverage etc.)

9. Upgrade the existing PBX telephone system to Internet Protocol (IP)-based communication system

10. Implement Project Connect: Inter-island Point-to-Point Broadband Wireless Network

11. Examine the feasibility and advantage of establishing a centralized storage area network (SAN) to allow efficient storage, retrieval, and recovery of data.

12. Enhance the existing video surveillance system to meet industry best practice standards.

13. Provide an emergency back-up power source for buildings V, W, and L from the existing 350KW college's generator.

14. Upgrade the obsolete Point-of-Sale (POS) system at the Bookstore with a new and improved POS windows-based system.

4.3. Enhance technology support for teaching and student learning

Implement and enhance the academic support for the improvement of teaching and learning, research, and other scholarly activities. Primary considerations include distance learning, electronic learning resources, web, Americans with Disabilities Act (ADA), library, student Portfolio, and file sharing.

Supporting Objectives:

1. Provide greater access to state of the art computing resources for faculty and students to increase technology literacy.
2. Issue an RFP to procure computer system and accessories for the new State of the Art English Learning Center.
3. Issue an RFP to procure a comprehensive software system (Rosetta stone) for the new State of the Art English Learning Center.
4. Research a comprehensive library cataloging system to support Library services.
5. Conduct workshops and/or provide support materials to create and sustain a technology savvy faculty.
6. Develop an ADA technology support plan that identifies the specific resources available to students.
7. Develop a PC replacement plan.
8. Determine the feasibility to provide single authentication for students to access campus resources through a portal. If appropriate, develop a project plan that allows implementation.

4.4. Establish organizational technology policies, procedures, and budget

Information Technology will initiate processes to conserve and improve the utilization and consumption of all resources to promote efficient and effective operations. Primary considerations include creating usage policies, operational procedures, IT staffing, employee training, and budget management.

Supporting Objectives:

1. Develop and amend existing technology policies and procedures.
2. Identify human resource needs for the IT department and hire additional IT staff.
3. Develop a comprehensive training plan to address IT staff training needs in line with the IT mission.
4. Seek vendors to bundle purchases from preferred technology providers to obtain the lowest possible pricing for standard desktops and peripherals.

4.5. Develop a distance education plan

Distance education will allow NMC to provide educational opportunity to far more people in the community. Distance education can reach motivated students that are unable to attend traditional classes due to geographic distance, work schedules, family responsibilities, and physical disabilities.

The college is developing a distance education plan to support students on the islands of Saipan, Tinian, and Rota. The first distance education classes that will be developed will be community programs and services, which do not require library resources or academic advising. Once the distance education infrastructure has been successfully developed, NMC will petition the accreditation agency to offer academic program classes at the remote sites.

Supporting Objectives:

1. Provide reliable digital communication connectivity between Saipan, Tinian, and Rota for delivery of audio and video to support distance education.

2. Provide reliable video teleconference (VTC) room capability to all instructional sites at Saipan, Tinian, and Rota. This is required for delivery of synchronous distance education classes.

3. Host NMC Online (Moodle) on a server on the Saipan campus. This will provide much faster access for this course management system than the current mainland USA hosting situation. NMC Online can be used as an effective tool for assessment of both face-to-face and online classes. It will allow students to submit class work, communicate with instructors, and take exams from any location.

4. Investigate asynchronous class delivery utilizing the Eluminate Live communication system. Eluminate Live is a web-based communication package and will allow audio and videoconference from a specific room on campus to anyone with an Internet connection. It also has the capability to record class presentations for streaming on demand.

5. Create a distance education training program for faculty that are interested in teaching using distance education. This will include multilevel training seminars covering effective use of NMC Online (Moodle) to organize and deliver a class. Training seminars will also be required for faculty for their intended delivery method: VTC or Moodle.

6. Provide for daily data backup and archive of all data associated with NMC's distance education program.

7. Online library resources will be developed prior to considering delivery of academic classes.

8. Online student advising resources will be developed prior to considering delivery of academic classes.

9. Develop a plan to access student learning utilizing surveys and performance criteria for classes utilizing distance education technology.