

## **Executive Memorandum No. 11**

### **Goals and Policies for Computing at the University of Nebraska**

#### Introduction

Executive Memorandum No. 11 entitled *Goals and Policies for Computing at the University of Nebraska* was approved by President Roskens on April 22, 1981. Since that time the University has taken steps to implement the policies outlined in the Memorandum. Thus, a Computer Utility and a Data Services Unit have been established along the lines indicated in the Memorandum. Campus Directors of Computing have been appointed for UNL, UNO, UNMC, and IANR. They, along with the University Director of Computing, have been functioning as a Computing Policy Advisory Board, assuming the responsibilities outlined in the Memorandum. An annual budget for the Computer Utility has been developed and annual campus contracts negotiated for its services and for some services furnished by the Data Services Unit. Considerable progress has been made.

However, it is clear that there is a need for further enhancement of computing resources for students, faculty, and administrative use with the University. A consulting team, commissioned by President Roskens, visited the University in May, 1982, and met with as many faculty and administrators as possible in the limited time available. The report of the consulting team and subsequent discussions within the University indicate that additional steps are required in order to provide academic and administrative computing at the level of support consistent with both the mission and status of the University, as well as the thrust of Executive Memorandum No. 11.

Computing activities have become an integral part of the academic and administrative process of the University. Considering current technology, it is felt that the academic and administrative computing needs can best be served and enhanced by separate computing systems dedicated to the unique needs of users in both groups. The separation of academic and administrative computing will clarify the relationship of funding and function, and it will provide greater assurance that priorities reflected in funding decisions are maintained over time.

It should be emphasized that major changes will be carefully planned, funded, and implemented to assure that those processes are not disrupted. Detailed planning should be established as an ongoing activity by the respected campuses and central administration. The implementation of the policies outlined herein will be given high priority.

#### General Approach

It is the objective of the University of Nebraska to provide academic computing support for the effective delivery of instruction, research, and extension-service processes and to provide the systems and computing support for the administrative processes required for effective management of the institution.

## Academic Computing

The University will provide the appropriate mix of interactive and batch processing systems necessary to serve effectively the diverse needs of the academic community. A high priority will be given to the developing of academic computing in the University.

The responsibility for planning and operating academic computing is delegated to the major administrative units and will be located in the offices of the campus Chancellors and Vice Chancellor of IANR. These campus efforts will be coordinated through the office of the Executive Vice President and Provost.

It is understood that, despite the development of dedicated academic computing facilities, there will remain a need for the utilization of the administrative mainframe for certain kinds of instructional and research computing, particularly during the development period.

Academic computing can be divided into instruction, research, and extension-service computing. The following are among the long-run objectives for academic computing in the University of Nebraska:

1. Since academic computing is delegated to the campus, each campus should identify its own specific needs and develop the specific objectives and plans to meet these needs. This will be done in coordination with the Office of the Executive Vice President and Provost.
2. Upgrade general faculty expertise in computing so that the use of computers will become more widespread in undergraduate and graduate courses - the ultimate goal is to assure that every member of the faculty has some familiarity with computer usage in his or her field, both in the practice of the discipline and as an aid in instruction.
3. Expose all students attending the University to computing during their undergraduate programs and require the majority of them to use a computer in some part of their college career.
4. Provide a campus commitment of levels of appropriate student exposure to computing, in terms of contact hours and hardware based on the degree of computing skill required.
5. Establish a plan for the development of specialized application areas at the University of Nebraska, so that certain capabilities can be shared across campus lines; e.g., computer graphics, unusual data base applications, text processing, and computer-aided design and manufacture.
6. Develop a mechanism for managing the development, implementation, maintenance, and operation of the academic computing systems.
7. Establish "state of the art" academic computing hardware and software tools to provide efficient and economical delivery of computing support.
8. Enhance service computing availability in the University by developing interactive capability and applications so as to make them readily available to students, faculty, and others as warranted.

## Administrative Systems and Computing

Administrative data systems can be grouped into two categories. One group encompasses those systems (both University-wide and campus) which utilize data from institutional data bases. The other group encompasses those systems which are unique to a campus and do not utilize institutional data bases.

Administrative data systems utilizing institutional data bases are not viewed as closed systems designed to meet a specific set of operational requirements. The primary focus is on the development of carefully defined and controlled institutional data bases containing data which are important to both the University and the campuses. Mechanisms will be developed for capturing and maintaining those data once. Programs will be developed to utilize that common source of data to support all levels of management through the institution. Although these systems will utilize a common source of data, individual campuses may require different reports derived from the data and may establish different administrative procedures for capturing and maintaining data tailored to the administrative processes on the individual campuses. Administrative data systems which utilize the institutional data bases will be funded by Central Administration, planned from a University-wide perspective with consultation with appropriate campus officers, developed and maintained by the Data Services Unit, and run on facilities operated by the Computer Utility.

Administrative data systems which are unique to a campus, as for example that operated by the University Hospital, and which do not utilize the institutional data bases will be funded by the campuses, planned by the campuses, developed and maintained by either the campus or the Data Services unit and run on either campus hardware - other than that devoted to academic computing - or on the facilities operated by the Computer Utility.

The key issues in the area of administrative systems lie primarily in the design and administrative control aspects of those systems rather than in providing the computing facilities necessary to operate those systems. Administrative systems are those mechanisms through which the necessary data is provided to support the administrative processes in the University. Administrative computing includes the hardware, software, and process required to support these administrative systems. The most effective means of providing the computing support necessary for administrative systems are largely determined by technical and economic factors once the system design and control requirements are defined.

Data which are necessary for the management of the institution and which must be developed and maintained in institutional data bases are data concerning students, personnel, financial resources, and facilities. This does not preclude the addition of data elements by a single campus to meet its needs. Neither does it preclude the extraction of a portion of the institutional data base for various campus uses. The specific objectives inherent in the general systems philosophy described are:

1. Establish institutional data bases concerning students, personnel, finances, and facilities and developing the systems necessary to their use.
2. Evolve Computing Services to support the operation of all administrative systems operating on the institutional data bases and other administrative systems as desired.
3. Provide through the Central Administration sufficient funding for "state of the art" administrative computing and for the development and operation of institutional data bases and the systems necessary for their use.
4. Reallocate the budget for existing administrative data systems consistent with the proposed structures of institutional-based and campus-based systems.
5. Establish an ongoing planning process for the development of institutional data bases and systems necessary for their use.
6. Establish within Central Administration a Management Information System (MIS) function with responsibility for providing direct staff assistance in the development and maintenance of an administrative systems plan for the University, and data administration which coordinates the definition and access control requirements of the institutional data bases.

7. Create an Administrative Systems Review Board to advise the Vice President for Business and Finance on administrative systems. This Board shall contain representation from each major functional area (student, academic, business) of the University. Its membership shall be determined by the Vice President for Business and Finance in consultation with each of the Chancellors. Review by appropriate Councils (CAO, CBO, CSAO, and President's Council) will be provided prior to implementation of administrative systems.

#### Operating Guidelines and Strategies

8. The operational control of academic computing, including priority setting, budgeting, and resource allocation, will be primarily at the campus level, and will be separated from administrative computing.
9. Overall guidelines for development of academic computing and for general overall policy related to academic computing will be developed University-wide under the auspices of the Executive Vice President and Provost, in consultation with the Campus Academic Officers, the Campus Academic Computing Directors, other academic computing representatives, and the University Director of Computing. The assessment of needs, planning, budgeting, determining the best means of satisfying needs and service delivery to the extent indicated will be a campus responsibility for academic computing.
10. Overall direction and the development of procedures designed to achieve the objectives for administrative computing and systems which utilize the institutional data bases will be under the auspices of the Vice President for Administration in consultation with the Administrative Systems Review Board, the University Director of Computing and campus business, student, and academic administrators. The assessment of needs, planning, budgeting, determining the best means of satisfying needs, and service delivery for administrative computing and systems is the responsibility on Central Administration.
11. Criteria for dividing the resources for computing between academic and administrative will be developed. They will include: (1) projected requirements and other appropriate factors, (2) historic patterns of funding, (3) consideration of special appropriations for computing, (4) historic patterns of usage.
12. Management at all levels of the University will have inquiry access to the institutional data bases consistent with their functions and responsibilities. For example: Administrators in Central Administration will have inquiry access to all data in the institutional data bases and campus administrators will have access to their campus' portion of the data bases.
13. All University reports provided to Central Administration, the Board of Regents, and all parties external to the University will use the institutional data bases as the data source.
14. A comprehensive review of all current administrative data systems will be conducted.
15. Any computing hardware acquired for administrative processing will be compatible with the Computer Utility hardware to assure that data can be readily transmitted between hardware systems.
16. Special scrutiny should be given to proposed purchases of computing hardware and administrative systems development until plans are completed.
17. Steps toward the attainment of the stated objectives will be taken only after careful, detailed planning to assure that critical computing support is not disrupted during transition.
18. Executive Memorandum Number 11 dated April 22, 1981 is superseded by this policy document.

The Vice President for Business and Finance has overall responsibility for computing at the University of Nebraska and will report periodically to the President's Council.

**Reference:** Pres. UN, Revised Executive Memorandum No. 11: Goals and Policies for Computing at the University of Nebraska, (October 25, 1982).