

Prince Mohammad Bin Fahd University
(Under Registration)

✦ **UNIVERSITY MANAGEMENT** ✦
INFORMATION SYSTEM

Draft Report

18 February 2005

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 **PREFACE**

This draft report, *University Management Information System* is submitted in partial fulfillment of Item IV.O. of the Contract between the Texas International Education Consortium (TIEC) and the Prince Mohammad Bin Fahd University (PMU) Founding Committee to facilitate the establishment of the PMU. This report is a draft of the first deliverable being prepared by the MIS task team under the guidance of the PMU Project Management Team. The second deliverable includes the Request for Proposal to vendors that will incorporate the specifications contained in this draft report. The MIS task team consists of experts from several TIEC-affiliated universities who are experienced in the selection, implementation, management, and operation of university management information systems.

The *University Management Information System* draft report is both a project management document and an operational document. As a management document, it describes the specific requirements recommended for information systems to support the PMU's students, faculty, and staff. The university MIS must also function in the information technology environment described and specified in two related project documents: *Information Technology Strategy*, and *PMU Infrastructure Specifications*. All of these documents are intended to be used together in the development of the information technology environment proposed for the university.

As an operational document, parts of the *University Management Information System* draft report are intended to be the basis of a Request for Proposal to be issued to vendors of management information systems.

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18 February 2005

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UNIVERSITY MANAGEMENT INFORMATION SYSTEM

DRAFT REPORT

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UNIVERSITY MANAGEMENT INFORMATION SYSTEM

DRAFT REPORT

I. EXECUTIVE SUMMARY

This report, *University Management Information System*, describes specifications and an acquisition process for an integrated management information system that will be used by Prince Mohammad Bin Fahd University (PMU). A state-of-the-art information system will be implemented to provide PMU's students, faculty, and staff with the highest quality of service.

The report describes the process and selection criteria for selecting the Management Information System (MIS). An industry-standard selection process is proposed in which vendors will respond to PMU's requirements in writing as part of a RFP (Request for Proposal). The PMU will be able to select the product that best meets the requirements.

Section III, Section IV, Section V, and Section VI are included as a separate file to facilitate creation of the RFP.

Section III is an outline of the proposed RFP.

Section IV includes specifications for a Student Information System, Finance Information System, Human Resources Information System, Portal, and MIS Technology.

Section V includes information about the proposed implementation schedule. A phased implementation is proposed beginning with the some modules of the Student Information System in Year 0 (2005-2006). Implementation of the Finance Information System and Human Resources Information will begin in Year 1 (2006-2007).

Section VI includes pricing and contract term information to allow the PMU to request pricing information for the MIS software, implementation services, and a database license. The PMU may contract with a single vendor who will provide and the MIS software and be responsible for the implementation. The MIS vendor may sub-contract with an implementation firm if necessary.

Appendices A and B contain background information about the university that is to be provided to vendors. This information provides a context for the MIS within the goals and programs of the PMU.

Appendix C and D describe staffing of the MIS group within the Chief Information Officer's organization. They provide an organizational chart and detailed position descriptions, including duties and required qualifications, for the MIS technical staff.

Appendix E contains Gantt Charts graphically illustrating the phased hiring of MIS technical staff and phased implementation of the system modules.

It is recommended that the CIO and the Applications Manager/Senior Systems Analyst for Student Systems be hired quickly to begin the implementation of the Student Information System.

II. PROCESS AND CRITERIA FOR SELECTING A MANAGEMENT INFORMATION SYSTEM

This section describes a process for selecting a MIS product and criteria for PMU administrators, functional department staff, and IT professionals to consider in selecting a system and implementation vendor.

The MIS vendor and the software manufacturer are usually the same vendor since MIS vendors rarely use resellers. As a result, selecting a vendor and selecting a system are essentially the same step, and evaluation of a system and evaluation of a vendor are not separate processes.

MIS software vendors often provide implementation services to assist clients with implementations. Third-party firms such as Accenture, Deloitte, and Cedar also provide implementation services for some MIS products. The suggested approach is for the PMU to contract with a single vendor who will be responsible for providing the software as well as implementation. The software vendor can sub-contract with an implementation vendor if required.

The technical specifications for an MIS presented later in this report define the key requirements for a Student Information Systems, Finance Information Systems, Human Resources Information System, and Portal.

Because of the benefits of an integrated system, the selection process should take into consideration requirements for all components of the MIS at the same time even if some components, such as the Student Information System, will be implemented earlier than other components.

The RFP selection process steps outlined in this report can be taken beginning in February 2005.

A. STEPS IN THE PROCESS

1. Establish communication with the MIS vendor community as soon as this report is approved and finalized

In order to encourage the MIS vendor community to respond quickly to the steps required for acquisition of an appropriate system the PMU administration should initiate contacts with the MIS vendor community so that the vendors will be ready to follow the selection and implementation calendar established by the university.

The list of major higher education MIS vendors has frequently changed as the result of acquisitions, mergers, and consolidations in this industry. At present, the list includes SunGard SCT, Datatel, SAP, Oracle/Peoplesoft, and Jenzabar. In contacting these companies, the university should identify representatives of each company who will serve as contacts. Contact information for these vendors is as follows:

Datatel Colleague
<http://www.datatel.com/>
Headquarters:
4375 Fair Lakes Court
Fairfax, Virginia 22033
1-703-968-9000
1-800-DATATEL

Jenzabar Total Campus Management
<http://www.jenzabar.net>
Jenzabar Headquarters
5 Cambridge Center
Cambridge, MA 02142
(617) 492-9099

Oracle Applications (includes Peoplesoft)
<http://www.oracle.com>
Oracle Corporate Headquarters
500 Oracle Parkway
Redwood Shores, CA 94065
1-650-506-7000 (outside U.S.)
1-800-ORACLE1 (within U.S.)

SAP Campus Management
<http://www.saparabia.com/>
SAP Arabia Jeddah (Main office)
Al Malek Rd.
P.O. Box 13395
Jeddah 21493
K.S.A.
TEL: (966) (2) 606 2217
FAX: (966) (2) 606 1466

SunGard SCT Banner
<http://www.sctcorp.com/Education/index.html>
SunGard SCT
4 Country View Rd.
Malvern, PA 19355
tel 1.800.223.7036 (within U.S.)
tel 1.610.647.5930 (outside U.S.)
fax 1.610.578.5102

2. Issue a Request for Information (RFI) to MIS vendors as soon as possible, February 2005

A Request for Information (RFI) is a brief document that serves two purposes:

- It introduces the university and its requirements to MIS vendors
- It invites vendors to provide basic information about their company and their MIS product

The RFI should be sent to the major MIS vendors who have established themselves as successful participants in the higher education MIS marketplace. Potential vendors will want to know an outline of the selection process, information about the size and nature of the university, and information about the technological environment of the campus.

The RFI should include:

- A cover letter, to be written by the appropriate PMU staff member (since the CIO will not be on board in February 2005)
- Text of the RFI requesting information about the MIS vendor and its products and services
- The appendices to this report in order to introduce the PMU

The cover letter for the RFI should include the following:

- Brief introduction of the PMU and the need for a MIS
- Brief description of the MIS selection process
- Due date for written response

The RFI itself should ask MIS vendors to provide the following information:

- A description of the ownership, corporate structure, and recent financial performance of the company
- A description of the company's business activities in the Middle East, including regional offices and names of universities in the region who are current clients, with a list of contacts

- A description of the basic MIS architecture, including information about programming language, standards compliance, hardware, network compatibility, operating systems, and workstation requirements
- A description of licensing arrangements and general cost estimate for serving the PMU's 5,500 students
- Screen shots and descriptions of each module of the MIS
- A description of the implementation services offered by the MIS vendor or a sub-contractor

3. Review RFI written responses and select suitable vendors, March 2005

Leading MIS vendors will respond quickly to a simple RFI. The PMU administrator of the MIS selection process along with any other appropriate PMU staff will review the written responses in collaboration with the university's consulting professionals. After the review, the selection process administrator will select suitable vendors to receive a Request for Proposal (RFP).

4. Distribute Request for Proposal (RFP) to selected vendors, March 31, 2005

After reviewing responses to the RFI, the PMU selection process administrator will issue a Request for Proposal (RFP) to the vendors whose MIS products are the candidates selected for further consideration. The RFP will include a call for more detailed information about the vendor and technical specifications for the system to be selected.

The RFP should be issued to vendors as an electronic document, which they can edit. The RFP should include the following:

- A cover letter, to be written by the administrator of the MIS selection process
- Section III Recommend Outline for a Request for Proposal (RFP) of this report *University Management Information System*
- Section IV Technical Specifications for a Management Information System of this report *University Management Information System*
- Section V Specifications for System Implementation for a Management Information System of this report *University Management Information System*
- Section VI Pricing and Contract Term for a Management Information System of this report *University Management Information System*
- A copy of the report *Information Technology Strategy*

- A copy of the report, *PMU Infrastructure Specifications*
- Appendix A The Management Information System and PMU's Information Technology Goals of this report *University Management Information System*
- Appendix B Overview: Prince Mohammad Bin Fahd University of this report *University Management Information System*
- Appendix C MIS Organizational Chart of this report *University Management Information System*

The cover letter for the RFP should include the following:

- Brief introduction of the PMU and the need for a MIS
- Brief description of the MIS selection process
- Due date for written response
- Instructions for format of proposals

It is recommended that an outline of the RFP be provided to vendors and that vendors be required to structure their response based on the outline. This will provide a consistency of responses that will assist PMU personnel in evaluating the responses and in managing the selection process. A suggested outline is included in this report as Section III Recommended Outline for Request for Proposal (RFP)

5. Review proposals and select a system, May 2005

The administrator of the selection process and other decision makers as identified by the PMU will review proposals and select a system.

6. Negotiate contract, Summer 2005

Negotiation of a contract for an MIS will be the responsibility of PMU officers (including the CIO, if available) and will follow PMU procedures.

If the MIS system is to be acquired prior to the appointment of a Chief Information Officer, then another administrator should be designated to manage the process.

7. Appoint a Chief Information Officer (CIO), August 2005

The report *PMU Implementation Plan* recommends hiring the university's Chief Information Officer by August 15, 2005 in order that he may participate fully in preparation for opening that will take place during Year 0. This also will enable the CIO to play an active role in the acquisition of the university's technology infrastructure and the Library Information System and in the implementation of the MIS.

8. Hire initial MIS technical staff, September 2005

In Section V.A, Implementation Schedule, this report recommends that a numbers of MIS technical staff be hired to begin work at approximately the same time as the CIO. The first to be hired should be the Applications Manager who will lead the MIS team. If the Student Information System will begin to be deployed as early as late fall 2005, the university will need to hire the Applications Manager quickly.

Other staff that also should begin work at this time are: Senior Database Administrator, Database Administrator, and Analyst/Programmer for Student Systems.

9. Deliver, install, and implement MIS, Fall 2005 – Fall 2007

Installation can not precede installation of the IT infrastructure. Therefore, installation of an MIS will require close collaboration of PMU's IT staff. It also will require collaboration with the appropriate functional departments.

It is the recommendation of this report that a phased implementation of the MIS begin as soon as possible. This will be particularly important for the Student Information System's Recruitment module, which will be used by the university's Admissions Office throughout Year 0 as it recruits the first class of students to the PMU.

A discussion of the recommended phased schedule for implementing the MIS is provided in Section V.A, Implementation Schedule. The process is graphically illustrated using Gantt charts in Appendix D, Phased Implementation Schedule.

10. Train IT staff and functional department staff, Ongoing

The MIS implementation vendor will provide onsite training for both IT staff and functional department staff on the operations of the MIS.

B. CRITERIA FOR SELECTION OF MANAGEMENT INFORMATION SYSTEM

A team of PMU administrators and consultants who review the responses to the RFP will select the system that best meets the needs of the university.

The selection team should consider all of the following criteria in determining which vendor system has the best combination of features and qualities appropriate to the needs of the PMU.

These criteria are presented in a recommended order of importance.

1. Adaptability to PMU defining characteristics, policies, and goals

The MIS must support the goals and strategies by which the fundamental vision of the university is realized.

2. Functional compliance with performance specifications

Section IV. Technical Specifications for a Management Information System describes the functions the system should perform. The MIS should be an appropriate system for a Middle Eastern university with 5,500 students.

The reviewing team should pay careful attention to references from present customers and may wish to interview these customers in some detail to determine vendors' strengths and weaknesses.

3. Compatibility with IT infrastructure

The MIS hardware and software must be compatible with the university's IT infrastructure as described in the report, *PMU Infrastructure Specifications*.

4. System reliability and documentation

System reliability is essential. If the MIS is not operational, many of the services of the university will be unavailable to faculty, students, and staff. The system should be well-documented to facilitate both the implementation of the MIS and on-going support.

5. Cost

Considerations of cost should include not only the acquisitions cost of the MIS (the hardware, software, and maintenance contracts) but also implementation cost. Proposed contracts should state clearly the responsibilities of each party. The contracts should detail which party is responsible for each step in the delivery, implementation, and ongoing maintenance of the MIS.

6. Vendor support services

Even the best systems require technical support and on-going maintenance. Evidence of timely, effective support service is, therefore, an essential requirement. The geographic location of vendor support staff, the extent of Internet-based support services, the timeliness of responses to problems, and the frequency of software updates are important factors.

7. Training and staff development program

Education and training are significant expenses during the deployment of an MIS. Training and staff development involve a partnership between the university and the MIS vendor, in which the vendor provides the expertise and materials for training of new staff and for continual development of existing staff. The vendor will also provide training to the PMU team that will implement the MIS software. The vendor may also provide end-user training for PMU faculty and staff that will use the MIS.

8. Ease of use by faculty, staff, and students

The system must be easy to use for faculty, staff, and students. This includes the time required for data entry screens and the look and feel of the screens.

9. Vendor reputation and financial performance

The historical volatility in the MIS industry should be a concern. Vendors should be reviewed in terms of their histories in mergers and acquisitions, their financial stability, and their prospects.