

Student Information System (SIS)

Position Paper

Scope

The University's Student Information System (SIS) is made up of a number of distinct modules including Student Records, Registration, Financial Aid, Billing and Accounts Receivable, Prospective Students and Admissions, Advising, and Residence. The number and variety of modules underline the fact that there are many stakeholders who have a strong interest in student services activities at the University and that this project will be a major undertaking.

The current SIS was developed by ITS staff and end users over the past twenty five years. It is very functional, highly customized, and still reliable, but the underlying database is becoming dangerously outdated. We believe it is critical to the University's future that the SIS be replaced within five years.

Rationale

SUPRA, the database management system that has been the foundation of the SIS for the past 25 years, is non-standards based and is no longer being marketed by the vendor (CINCOM). This database is also outdated technically, making it difficult to communicate with other databases or applications on other platforms. Most importantly, however, continued support from the vendor is very questionable which, in the long term (4-7 years), could render our system unusable. The current architecture and applications were designed in a different era of information systems and, consequently, are not as flexible and easily extendable as needed. It is becoming increasingly difficult to provide the automated services desired by students and ESS staff. One crucial example is that the current applications are unable to provide 24X7 operations. Another example is that many of our web based self-service applications reside on separate hardware/software platforms and are not interactive with the base system.

In addition to 24X7 access, new self-service applications require web forms, EDI, e-commerce, workflow, modern security and authentication all to be closely integrated into the applications. To the extent these capabilities exist in our current system, they were developed as an add-on to the base system. Consequently, these

applications are highly complex, and therefore more vulnerable to problems than would be the case with a new, integrated system. Along with the acquisition of the Oracle Financial System, UNI purchased a campus license for the ORACLE database management system. ITS has selected the ORACLE DBMS as the University standard for campus wide database applications. The ORACLE financial system runs on a UNIX platform using SUN hardware. The current SIS runs on an MVS platform using IBM hardware. It is very expensive to support two such different administrative platforms. Additional staff and expertise are required to support multiple operating systems, databases, and development platforms. Additional software, hardware, and interfaces are required to integrate the disparate systems and data. Maintaining the current patchwork of platforms is becoming increasingly expensive. A new, integrated system will allow us to maintain it more easily, concentrating more on functional improvements and new capabilities rather than maintaining several platforms and preventing, as well as troubleshooting, breakdowns.

The current SIS was developed at a time when the need to manage transactions was the predominant driving force in the development of applications. Today, student data has become of considerable strategic value. New systems are now designed with management and decision making, as well as transaction functionality, in mind. The current system was developed by many people over 20 years and represents a significant University investment. We estimate total development cost for the current system to have been in the \$12 million range.

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