

President's Retreat
Comprehensive Enterprise Information Environment
Office of the CIO
July 16, 2007

Goal

Initiate an enterprise-wide technical architecture and plan for an inclusive campus information environment that can leverage contributions from multiple campus organizations through a “community of software developers.”

The Challenge

Central information technology service organizations are historically resource constrained and focus on the core administrative applications such as finance, human resource management, student systems, and portal. However the campus could achieve large productivity gains if additional functionality could be proactively created and integrated into a common campus information framework and made available to the entire campus. Examples include faculty/staff recruitment and monitoring student progress toward graduation. Currently, some new applications that come from colleges or departments and that are written to satisfy local needs are added piecemeal to established core applications. The locally written applications may not use enterprise services (such as authentication), comply with all state audit requirements (e.g. system development life cycle, security and disaster recovery) since local developers are usually unaware of these requirements, coding standards, or documentation standards. Also some core applications suffer from complexity and dependencies that should be eliminated. This model is not sustainable.

The Game is Changing

There is increasing interest among large universities in providing open source software for higher education that provides major parts of the campus information infrastructure. Sakai (e-learning system), Quali Financials (financial system), Coeus (sponsored program award acquisition a.k.a. Quali Research Administration), and Quali Student Services System are now under development and will be available to download for free in the next several years. Each of these applications is being created by a consortium of (different) universities interested in open source systems. The University of Maryland is, in fact, one of the founders in the Quali Student Services System. We should adopt a similar open systems methodology and process of inclusion for on-campus enterprise software creation so that all campus software development efforts can be directly leveraged for the benefit of the entire campus through the participation of a “community of software developers.”

What is to be Done

The approach is to develop Systems that Create the University Technology Environment (SCUTE) by engaging the Enterprise Administrative Applications Advisory Committee (EAAAC), a subcommittee of the IT Council, as the steering committee for this effort. The steps are as follows:

Step 1 – Have EAAAC gather campus functional requirements for functionality and define the criteria for what systems will be included in this effort. Units with existing applications will be encouraged to join this effort such as Administrative Affairs, Engineering and OIT.

Step 2 – In parallel with Step 1, engage the campus software development community to define the technical architecture and standards that will support software development and production use of campus information systems that conforms to audit requirements and that will be used to implement the campus information environment.

Step 3 – Define the major software building blocks that must be implemented and the interfaces required between systems with simplicity as a key goal.

Step 4 – Create a campus community of software developers willing to help create parts of the campus information environment with coordination and assistance from the central campus information technology organization.

Step 5 – Develop modular systems to implement the campus information environment.

We would expect to achieve Steps 1 through 4 in FY08 and to be prepared to begin developing new campus information functionality in FY09.