

Nomination Form

Please complete entire form. All nominations must be postmarked no later than Monday, July 15, 2002.

Title of Nomination: Integrating WebCT Campus Edition within a University's Architecture

Project/System Manager: Brad Morgan / Terri Tomblin-Byrd

Job Title: WebCT Administrator / Director, Database Administration and Shared Systems

Agency: Marshall University

Department: Information Technology

Address: One John Marshall Drive

City: Huntington

State: WV Zip: 25755

Phone: 304.696.7113

Fax: 304.696.3229

Email: bradley.morgan@marshall.edu

Category for judging (please list only one): Enterprise Information Architecture

Person Nominating (if different than above): _____

Job Title: Director, Center for Instructional Technology

Address: One John Marshall Drive

435-B Drinko Library

City: Huntington

State: WV Zip: 25755

Phone: 304.696.7121

Fax: 304.696.3229

Email: christian@marshall.edu

Please return nominations to:
2002 NASCIO Awards
167 West Main Street, Suite 600
Lexington, KY 40507
brozman@amrinc.net

Executive Summary

From November 2000 to January 2002, Marshall University evolved from providing web based services requiring separate authentication processes with different authentication credentials and on-going data synchronization schemes for e-mail, administrative information services, and online course management to a unified digital campus.

Marshall University was the first university in the state of West Virginia to successfully implement a technology that enabled the integration of a course management system, e-mail application, electronic calendar application and administrative information system self-service within a campus portal.

myMU, Marshall University's portal solution, provides 43,000+ faculty, staff, students, alumni, and affiliates with single sign-on access to various information services in one location. Users can access e-mail, electronic calendars, administrative self-services, course supplements, chat rooms, message boards, multiple search engines, receive targeted announcements, and more, with the benefit of real-time data synchronization between SCT Banner (MU's Administrative Information System) and myMU. In addition, the integration provides real-time, bi-directional exchange of data that synchronizes the user, course, and grade information shared by SCT Banner with WebCT's e-learning suite of tools. This architecture uses advanced technology and education specific IMS standards to ensure a scalable and extensible integration solution.

The portal has provided significant improvement in communication methods, reduced course administration, improved account maintenance and support, and strategically aligned the university for the next generation of portals.

Several benefits realized include more cost-effective and efficient communication methods, increased revenue through improved recruitment and retention, improved customer service satisfaction, and the effortless integration of technology into the teaching and learning process. Though this reduced cost can be significant, the real savings is the decrease in the amount of faculty and staff resources spent performing mundane administrative tasks. This decrease allows them to spend more time interfacing with students, doing research, and working to enhance the portal's learning environment.

The integration has increased efficiency in the sharing of data among disparate university information systems. The introduction of the portal was a significant catalyst to provide aggregate services by way of an efficient, connected, and integrated gateway for all learners.

In recognition of Marshall University's successes, SCT honored MU during the annual SCT Summit Conference by recognizing Marshall University as one of twelve institutions considered to be Pioneers in Connected Learning.

a) Description of project, including length of time in operation.

In November 2000, Marshall University realized that providing customer centered services that could adapt to the customer's dynamic relationship with the institution, was a key element in our strategy to remain competitive. There was an increasing need to be aggressive in enhancing our programs and services to attract and retain teachers and learners. Those prospective teachers and learners have come of age in a "connected" world and expect to use the Internet as a primary interface to higher education.

The University already provided several innovative technology-based services including on-line courses and course tools, email, electronic discussion lists, and web-based self-service for several administrative functions including registration, bill payment, grade entry, etc. However, each of these services required a separate authentication process with different authentication credentials and on-going data exchanges. Interfacing disparate systems in real time was a challenge. Batch updating from one system to another was generally the method used for tying the systems together and sharing data. Implementing an integrated system solution would relieve technical staff of this data synchronization chore. Moreover, it would provide the means to connect and integrate new and existing technology resources to streamline management and increase customer convenience and services. With this in mind, MU began evaluating products for a portal solution that would provide a central access point to university resources and services and that would be scalable and standards-based to facilitate growth and extensibility.

One major requirement was that the product be capable of integration with SCT Banner, Marshall University's Administrative Information System. SCT's alliance with Campus Pipeline and WebCT offered great promise for current and future integration, providing a seamless connection between SCT Banner and WebCT Campus Edition via the Campus Pipeline's portal and SCT's Mercury Message Broker (SCT Connected Learning Solution). MU ultimately chose this solution. SCT shipped the Connected Learning Solution software to more than 100 licensed clients in April 2001.

More than forty staff members participated in the implementation of the Connected Learning Solution. The project implementation team (PIT) included a representative from each project stakeholder group. The stakeholder groups were selected by the university's senior vice-presidents. The PIT had one Project Manager, one Technical Leader, and one Functionality Leader. The remaining team members were assigned to one or more subcommittees. The Project Manager reported regularly to the Executive Project Sponsors. The PIT decided to implement the portal with the Campus Pipeline/Banner connection in Phase I and then implement the Banner/WebCT connection in Phase II.

In August 2001, Marshall's portal solution, myMU, was deployed. myMU provided 43,000+ faculty, staff, students, alumni, and affiliates with single sign-on access to various information services in one location. Users could access e-mail, electronic calendars, administrative self-services, course supplements, chat rooms, message boards, multiple search

engines, receive targeted announcements, and more, with the benefit of real-time data synchronization between Banner and myMU.

Implementation of Phase II was completed in January 2002* in preparation for the Spring Semester. This phase provided real-time, bi-directional exchange of data that synchronized the user, course, and grade information shared by SCT Banner with WebCT's e-learning suite of tools. This architecture used advanced technology and education specific IMS standards to ensure a scalable and extensible integration solution.

In March 2002, SCT honored Marshall University during the annual SCT Summit Conference by recognizing MU as one of twelve institutions considered to be Pioneers in Connected Learning.

myMU will continue its evolution in August 2002 with an upgrade that will provide PDA synchronization, group portal resources to facilitate de-centralized group administration and self registration, group maker capabilities to enhance targeted messaging, as well as course consolidation for those faculty teaching several sections of the same course. On the horizon is the transformation of myMU to a 3rd generation (Gen 3) portal providing content management and unification of disparate systems via standardized integration adapters.

* an overview of the connected environment is included in Figure 1, located on the last page.

b) Significance to the improvement of the operation of government.

- Less WebCT Data Administration - Prior to implementation of the Connected Learning Solution, Marshall University's WebCT Administrator spent over 200 hours entering semester data into WebCT to create over 400 courses and generate course enrollment records for nearly 8,000 students. During the Spring 2002 Semester, Marshall University effectively launched the integrated solution connecting Banner and WebCT. Using XML data extracts from SCT Banner, WebCT was populated with over 500 courses and over 9,800 students with little intervention required. After the initial imports from SCT Banner to WebCT were completed, real time synchronization of user identification information and course enrollment information was maintained via the gateway from SCT Banner to the Mercury Message Broker and into WebCT. This enabled the WebCT Administrator to re-allocate precious person hours to other tasks such as research, planning, training, and maintaining better customer support.
- More Efficient Communication – The portal supports targeted announcements. This provides a method to send an important announcement to many individuals at once without having to clutter the network and email servers with multiple copies of the same email message. When a targeted announcement is sent, only one copy of the announcement is stored on the portal server but is viewable by every user specified in the target group.
- Reduced Course Administration – Faculty members no longer have to populate course related email groups or course calendars since this is done automatically. Faculty no longer have to make manual updates to their course enrollment records or class rosters due to the real-time data synchronization.

- Improved Account Maintenance & Support - Integrating the disparate systems with a single ID and PIN has reduced the number of support calls with regard to system authentication. Moreover, the integration has enabled the account creation process to be triggered by the occurrence of a defined event in Banner such as registration activity or an employment process; thereby reducing the workload of several IT personnel – from the account request entry person to the account creator to the person responsible for updating the various data stores with the account information – and preventing data entry errors that would sometimes occur during the legacy account request and creation process.
- Strategic Alignment for Future Portal Trends – As institutional business practices continue to evolve and align themselves more closely with customer relationship models, portal products will need to develop into true customer-centered and unified systems. As a constituent enters the portal of the future they will expect to be presented with the resources and services that meet their current needs. Therefore, the portal must be able to adapt to the user's changing role or relationship with the university. Campus Pipeline's newest portal solution (Luminus) is designed to unify, extend, and manage the digital campus of the future. Marshall University was successful in negotiating a license agreement that would allow migration to the Luminus product family from the Campus Pipeline Web product platform free of charge.

c) Benefits realized by service recipients, taxpayers, agency or state.

- Aggregation of information and services
- Dissemination of information to the right person at the right time
- A method of easily turning manual campus services into Web services.
- Improved user management to regulate, manage and secure access
- Increased revenue through improved recruitment and retention
- Reduced recruitment costs
- Improved customer service
- Improved customer satisfaction
- Improved productivity by customized content and increased delivery speed for information presented to all constituents.
- Means for individuals to establish a long-term relationship with the university
- Instructors and students can effectively integrate technology into the teaching and learning process without having to know or learn complex systems. The solution can enhance the face-to-face contact our students and faculty appreciate and expect.

d) Return on investment, short-term/long-term payback.

- All members of the campus community can tap into abundant academic resources, administrative services, community information, and the Internet at large-all online, from anywhere at anytime. This level of accessibility promotes the institution's commitment to service and to the success of its constituents, provides better communication channels, and lends itself to a cost effective recruiting tool by way of lower reproductive and access costs.

- Proving such services as e-mail, chat room, and discussion groups to traditional and non-traditional learners enhances the learning environment and increases the opportunity for interaction among learners. In fact, it will create an improved educational experience since students will no longer be limited to traditional classroom exposure to subject matter and peers. This enhanced interaction increases the odds for improved retention rates. Higher retention rates will help the institution remain competitive.
- With the proper approach, operational efficiency frees up an institution's resources so they can be spent in other areas, such as new services, more courses, enhanced faculty resources and facility improvements. When an institution keeps its operations as efficient as possible and eliminates waste, it can offer a greater breadth of services and mentoring opportunities to students without increasing staff workload. It can redeploy its faculty and staff to do more important work and enhance the service it offers its constituents. National Center for Educational Statistics data show that the average faculty member reports spending approximately 13 percent of her/his workday on administrative tasks - time which, through greater operational efficiency, could be applied to mentoring students, teaching an additional course section or researching. By reducing the time faculty and staff spend performing needless manual administrative procedures; they can allocate more time towards improving their relationships with the customers that hold the purse strings. These improved relationships could cement a life-long bond between the student and the university, providing greater opportunities for alumni development and continued learning services. In addition, the prospect pool for major fund raising campaigns would increase due to the extended contact with alumni. While it is too soon to measure this ROI, the potential is very positive.

Figure 1

The Big Picture

The following graphic illustrates the software components included in the Connected Learning Solution

