

SURA PACS NMI Workshop:
“Deploying Directories and Directory-Enabled Applications”

**SCENARIO: HOWEER UNIVERSITY MIDDLEWARE CHALLENGE
(July 2003)**

BACKGROUND

Howeer University. A small liberal arts University founded 1897. Student population size is 2,500 undergrads with Masters Programs (312 students) in education, business, psychology, and communications. Over half of Howeer’s students are commuters or adults living off campus. Howeer has a faculty of 114 full-time faculty, 98 part-time faculty, and 178 staff.

Motto: “We Are Fine”

Howeer U. is in Midville, USA, population 16,000. The campus has 310 acres of rolling green, wooded hills for its campus and is on a bluff overlooking Midville’s downtown business district. Midville is 23 miles down the interstate from Big City (population 150,000) where Central State U is located.

Infrastructure:

Howeer U. has Internet access via a connection from a major regional service provider. All of Howeer’s residence halls are wired with a “port per pillow” as are over two-thirds of its 51 classrooms. There are 5 multimedia classrooms that are increasingly popular as the faculty themselves become more “wired” with their online course components.

An important part of infrastructure: The business, registrar, and financial aid offices (not to mention Alumni and Facilities) are housed in different buildings, essentially growing out of the registrar and financial departments over the last 20 years. There is a running debate on consolidating physically vs. coordinating logically.

ERP systems are from UBET Corp. for human resources, payroll, finance, and from *ALT.Systems* for admissions, registration, and financial aid – were first installed in the mid 90’s and then hurriedly upgraded in 2001-02 to address Y2K issues. Alumni Development and facilities applications remain on legacy platforms. Integration among these systems is done via file feeds or by re-keying, depending on situation. Planning is just beginning to focus on shifting all systems to the UBET Corp. ERP suite.

Portal – Howeer U. is very interested in taking the next step in using UBET Corp. ERP with fully articulated Student Portal, especially to access online courses from Central State U.

Email has been important since the mid 90’s. MiniSoft Mail Depress is used by the campus. Email accounts are generated by UBET ERP system algorithm (first initial + last name + number if needed.) and passed to the MiniSoft Mail. Nearly all full-time faculty and staff regularly use their campus email accounts. However, most part-time faculty and nearly all students still use

their own email accounts (cf. Hotmail, AOL...), and there is no guarantee that everyone reads mail at their official assigned account.

Automated student email groups – The UBET ERP for Student provides a mechanism for faculty to send email to their course sections. However, a current glitch is that if the course has over 35 students, you can't include all the addresses on the TO: line (related to MiniSoft Mail Depress software the Howeer U. uses for mailing.) And there's not a good way to combine course sections. Also, creating other group email lists is by somewhat cumbersome "population extract" that is not much used.

Automated employee email groups – The MiniSoft Mail Depress software doesn't provide much in the way of email groups for staff. What email lists there are, are managed out of the finance office – as legacy from budget processing.

Student labs – there are 6 student labs on campus with 120 total seats. Security has been an issue, as well as concerns about frivolous use. To date the labs have been accessed by assigned group accounts (changed each term), a method that is becoming problematic to manage well. It is being recommended that a better authentication, authorization mechanism be deployed.

Directories – there is an online directory, built from in-house file systems, but it is considered mostly a department and services lookup (cf. Admissions, Payroll, Dean's office...) with only some of the top administration listed specifically with phone numbers. Email entries are often missing or inaccurate for students and part-time faculty. It is really an online version of the printed directory that is issued to everyone each fall... and consequently, there is growing pressure for better than "right once a year" online directory.

Wireless – There is some wireless, but no official deployment, primarily due to lack of sound authentication model.

Library – The library has one of the student labs on its main level (20 seats) as well as 15 PCs near the reference desk that are essentially for browsing, search, and research purposes. The Library is interested improving its access to vendor databases, which is currently done by using one of the 15 PCs closest to the reference desk. These 15 PCs have their IP addresses permitted to several vendor database services. Other databases use a password access scheme and are available over the campus network. The library would be able to negotiate better contracts with its database vendors, expand its offerings and improve service convenience to patrons if there were a better way of handling access to vendor databases. The Library also wants to consider improvements in its circulation function, currently based on an assigned barcode card issued to each student as part of the Fall registration package. This card is often "lost, forgotten, damaged..."

Course Management – The campus recently installed a CMS from Top2CMS, Inc. and would like to integrate it with UBET Corp.'s ERP in the context of its portal, but currently it uses file feeds to create student and faculty accounts in the CMS.

PERSONNEL

President, Dr. Aymin Jarge. The President has been at Howeer U. for 7 years and was instrumental, along with the Dean, in supporting UBET ERP system. The President is on record from Fall Senate meeting 2002 as saying, in a comment on the completion of the ERP System “*Now we’re set for an email project so I can email anyone on campus.*”

Dean, Dr. Yu Hu. Dr. Hu came to Howeer U. from Central State U. where she supported an initiative for faculty access to Internet2. She would like to make Internet2 available to Howeer U as well. Dr. Hu is very concerned with retaining faculty by offering technology access services... “*Enjoy the world from the comfort of Howeer U.*” is a favorite line. She was also instrumental getting the campus to install its Course Management System (though this was done without any significant consultation with faculty as to which CMS to select or how it would be integrated into existing pedagogy).

CIO/IT Director/Lead System Analyst, Bob Doss. Mr. Doss has been at Howeer U for 22 years, working up through the ranks from being a student assistant when he was an undergrad, then as a Programmer I while he was doing a masters in business/computer information systems. Bob has personally written many of the application modules still in use at Howeer U, and is the “go to” person for many system problems (“ask Bob Doss, he’ll know...”). This hands on style is something that Bob is trying to ease up on, especially as the President advised him that in the role of CIO he’d need to delegate more. He has 6 fulltime staff and 8 student assistants – and no travel or training budgets (travel or training funds come from salary savings on vacant positions). He’s been very pleased with Howeer U’s success in its UBET Corp. ERP and ALT Systems solutions and was recently named CIO by Dean Yu as part of an overall information technology overhaul for Howeer U. – which included consolidation of its staff previously assigned separately to academic and administrative service units. He’s attended the EDUCAUSE Seminars on Academic Computing (<http://www.educause.edu/conference/sac/>), found the Internet2 Middleware site (<http://middleware.internet2.edu/>), and heard about the last Internet2 Member Meeting from his sister-in-law who works in IT at Central State U. He thinks a middleware infrastructure is what Howeer U. should focus on.

Registrar, Ariya Dunnyette. An advocate for students, Ms. Dunnyette, who joined Howeer U. 8 years ago, is leading the UBET ERP integration/portal project. Ariya is especially concerned about providing improved services for students and sees online services and a portal as means to attract and retain students. Like Dean Hu, she thinks Howeer U. can leverage its beautiful campus by making sure it is “*well wired,*” but not at the expense of security. A favorite topic for Ariya is Family Educational Rights Privacy Act (FERPA) – she is “*serious about FERPA.*” While she certainly is an advocate for better services for students, she is very proprietary about her ownership and control of student systems, and there has been grumbling from Dr. Quick of HR/Payroll about how that slows down progress.

Director of Human Resources/Payroll, Dr. Hiram Quick. – Dr. Quick has been at Howeer U. since 2000. He sees his charge as implementing many of the Phase 2 features of the UBET ERP project. Coming in after the Phase 1 goals had been set, he’s been chaffing at the bit to get on with “essential” functions like “self-service benefits,” “online and email notification of

payments” (including pay stubs to employees and student assistants), and “campus calendaring.” Having come to Hower U. after 20 years at a large eastern public university, Dr. Quick sometimes is impatient with progress, and keeps mentioning that a contract programmer could build these functions effectively – “*Hey, it’s a web page with some ERP interfacing, what could be easier?*” When the President talked about his “*email project so I can email anyone on campus,*” Dr. Quick was the first to say “*Let’s do it.*”

Director of Libraries, Dr. Miriam Book – Dr. Book has been at Hower U. for 4 years and is particularly interested in the “library of the future.” She is chair of the local ALA chapter, and wants to be involved in technology decisions on campus, but has taken a “back seat” as the focus has been on core ERP systems. While Dr. Book feels that the library is the “soul” of the institution, she has not been very aggressive in advocating for that role. While there is a large and growing program in continuing adult education, Dr. Book has not well articulated the Library’s role. For example, the current skirmish is about these adult education cohort groups making use of LexisNexis services – and “having to go to a particular library room to use online the online resource!” Dr. Book thinks this “doesn’t compute” and faults the CIO for not addressing it.

SCENARIO

It is May 2003 at Hower U. and the Spring Term is nearly complete. As part of fiscal year (July-June) closeout, it is apparent that budgets are tight, as it is across higher education in general. A recent President’s staff meeting has caused quite a stir. With funding an issue, priorities are being debated, and alliances are being negotiated. It seems that everyone thinks the best focus of budget priorities is in their own area, though they all agree that Hower U. is at critical juncture: Hower U. must continue its UBET ERP integration and portal implementations, it must address technology issues to retain faculty and students and remain competitive while preserving its representation for the “personal touch.” Some advocate a series of short, targeted implementations to address “hot spots,” while others believe more investigation and planning are needed before expending scarce resources.

After a sometimes-heated debate, President Aymin Jarge, finally closes the discussion by assigning CIO Bob Doss to head up a committee to study the issue and come back with a recommendation for action. The President wants the CIO to keep the Dean, Registrar, and Director of Human Resources/Payroll in the loop and arrive at a consensus solution by June 30 with a plan for action for FY 2004. The President is “*confident you IT guys can come up with a good overall strategy with some solid short term deliverables and long term viability.*”

Bob decides to go with a new approach, using the “*Enterprise Directory Implementation Roadmap*” that he’s found in the Internet2 Middleware site. His sister-in-law at Central State U. said it was definitely a hot topic at the recent Internet2 meeting and she and he discussed how a middleware infrastructure approach could be what Hower needed. Bob was a bit skeptical about how to get started, but when he saw the “*Roadmap*” it kind of “clicked” for him. Focusing on directory services is a logical starting point and should be a good foundation for middleware.

Bob realizes that for this to succeed he needs to follow the “Roadmap” and he decides to sketch out a draft of his approach during the weekend, and start working it. Fundamentally, Bob recognizes that his task is to come up with a plan that will work and then to justify the priorities. Ironically, most of the faculty and students (and a good portion of the administration) really don’t care how it’s done, they just “want technology to work” and not impact their priorities. So Bob balances between confidence and fear: if he knows what to do, he’s sure he can do it, he’s always managed before.

YOUR TASK

Throughout this workshop, you and your colleagues will collectively “be Bob” and determine a path forward and a suggested timeline for deploying an enterprise directory service and selected related applications at Howeer University. This will serve to illustrate for the Howeer University President and others that deploying core middleware infrastructure, though challenging, is by no means impossible, that there is a clear value in doing so, and is a necessary first step for the success of an eventual UBET/portal integration project. As part of this, the team of workshop participants and instructors will determine a schedule of activity addressing policy issues, strategic and tactical elements, remaining mindful of current budget and resource constraints. The team will also state assumptions and articulate specific roles and decision points that are important to the project being successful. A consensus solution is important and the team will need to consider how to achieve that throughout the process.