ABSTRACT
As a result of revisions by the Florida State Legislature to Florida’s Educational Code, the Florida Universities Consortium was formed to create an Enterprise Resource Planning solution for each university’s information technology needs.

Florida State University implemented the ERP solution from Peoplesoft© for financial and human resources applications. This solution was developed to meet financial, human resource and administrative needs for 40,000 faculty, staff and students of FSU. ERP project requested services from User Services and Administrative Information Services. US provided telephone and on-site support to assist the deployment of OMNI to university staff and faculty. AIS also provided authentication and security for applications.

The objectives of this paper are to detail how US worked in collaboration to:

• Switch and deploy a customizable ticketing application that will provide remote accessibility to ERP, AIS and US.
• Provide customer self-service tools for problem resolution and/or report technical issues.
• Develop and utilize new authentication services provided by AIS to help increase support services to the students, employees, and affiliates of FSU and provide tools to support OMNI.

General Terms:

Keywords
Application Implementation, Application Support, Board of Regents, Enterprise Resource Planning (ERP), help desk, Online Management of Networked Information (OMNI)

1. INTRODUCTION
In 2001, the State Legislature rewrote Florida’s Education Code. Among many other changes, State Universities became Public Corporations instead of State Agencies. Prior to the Education Code rewrite, all of the State Universities were governed by one Board of Regents. They were considered to be state agencies with the inherent rights and obligations to use state accounting systems and the state payroll systems. Florida Universities were bound to state rules, regulations, processes and systems. The Education Code rewrite abolished the Board of Regents, gave each State University their own Board of Trustees, and reclassified the State Universities as Public Corporations, removing state agency status. The State Universities were advised by the State Comptroller that they would no longer be allowed to use the state financial systems (SAMAS / FLAIR), nor the Bureau of State Payrolls for production of pay warrants (HRMS).

After this announcement, four universities joined forces as a Consortium and issued an Invitation to Negotiation (ITN): they were Florida State University (FSU), University of Florida (UF), University of West Florida (UWF), and University of North Florida (UNF). Early in the process, UWF decided to drop out of the Consortium; after product demonstrations, UNF decide to purchase SCT and also drop out. UF and FSU were joined then by Florida Agricultural & Mechanical University (FAMU). UF, FSU, and FAMU chose PeopleSoft as the vendor with which to proceed in evaluations and negotiations.

Enterprise Resource Planning1 is a term coined in the early 1990s. It began as a group of applications or software focused on combining multiple systems into one integrated system where data could be shared across the enterprise, presumably reducing redundant data entry and processes. It was originally proposed for manufacturing and production planning. In the 1990s, ERP

solutions expanded to include ordering systems, financial and accounting systems, asset management and human resource management systems, and then later, the solutions were again broadened to include systems that made it possible for universities and other governmental entities to consider them for their business processes.

The Consortium took this opportunity to use the ERP solution not only to integrate data systems, but to also redefine processes in the interest of gaining efficiencies. ERP also promoted professional growth for employees by introducing new skills and knowledge in the areas of data management and procedures.

2. THE PROJECT
The Active Integrated Management Project (AIM), an undertaking of the Enterprise Resource Planning (ERP), was established to implement an Enterprise Resource Planning system at Florida State University (FSU). The AIM project recruited university employees from administrative departments and outside short-term contractors. Online Management of Networked Information (OMNI) is the ERP application that AIM implemented to meet Florida State University’s financial and human resource administration needs. The OMNI would need three (3) modules, OMNI Financial for purchasing and accounting, OMNI Human Resources/Payroll (HR) for paying employees, and the Student Administration to store student records. These applications would replace the state systems SAMAS, FLAIR and HRMS.

User Services (US), a division of the Office of Technology Integration (OTI), is the centralized computer support for Florida State University. User Services (US) was formed as a part of the Academic Computing and Network Services (ACNS) department in 1999 with the task of managing a computer support help desk, software training, campus-wide software site licenses and technical computer support. Today User Services is considered the University “Safety Net” for Technical support on campus. This division supports all of the administrative personnel’s computing resources and hardware as well as being the backup support for Academic departments.

The User Services Computer Help Desk has become the main reference of technical support on campus and currently supports other campus call centers. The US Help Desk is a 7 day a week operation and is open 15 hours during the week and 8 hours on weekend and select holidays. The US Help Desk is staffed with at least 8 full-time employees and 4 part-time student Other Personnel Services (OPS) employees who work morning, evening and weekend shifts. Most of the requests for support are handled through the phone line for help, but the help desk also responds to e-mail and walk-in assistance requests. In total, the US Help Desk supports 40,000 active students, faculty, affiliates and staff with an unknown amount of retired faculty and staff, former and alumni students.

Administrative Information Services (AIS), another division of OTI, is the programming and application development group that provides business solutions and services. AIS previously developed one of the most used applications at Florida State University: call “Secure Login”, it provided access to a wide range of on-line services.

3. SUPPORT PLANNING
3.1 Support development plan
The development of the prototype OMNI began in February 2003. OMNI would be designed to have all the functions of the state systems behind a web based GUI. In June 2003, the prototype of the OMNI application was demonstrated to the university consortium executives. Deployment and application support would be the responsibility of the individual universities starting July 2003.

US drafted and presented a support plan to the AIM/ERP team. According to the OMNI project timeline, the deployment dates for the two of the three modules were July 2004 for the financial module, and January 2005 for Human Resources/Payroll module. In the plan, AIM agreed to provide application support training to the US Help Desk, and application training to university staff. AIM had planned to build an OMNI support help desk to handle navigation and training issues. Since the first module would be used only for FSU’s administrative staff, US agreed to provide field support with the assistance of the AIM application development team and Peoplesoft programmers. AIM would continue application testing and provide system information, PC configuration settings and browser requirements for OMNI. US and AIM application development group joined together to create what was called the “SWAT” team. This group would go out in the field to insure that workstations in the administrative offices had the proper configurations, updates and browser settings. It was agreed that proper advanced preparation would limit technical issues.

AIM needed an authentication process so users could login to the OMNI application. For this, AIM requested assistance of one of User Services sister divisions, AIS.

3.1.1 Authentication
The AIS department developed the Florida State University Identity (FSUID). The FSUID would be used as the authentication process for the OMNI/PeopleSoft gateway. FSUID is the “merged” identity that is composed of all of the previous legacy identities such as e-mail and other currently used on-line applications. AIS also developed an FSUID/helpdesk administrative tool to assist both help desks in troubleshooting login problems with OMNI. The US Help Desk could assist users in looking up their user name and resetting passwords. The AIS division provided support to the US Help Desk on troubleshooting and resolving FSUID problems and using the FSUID/Helpdesk utility.

An employee’s FSUID uniquely identifies the user’s rights and roles in the OMNI application. For a user to have an FSUID, the user must have an FSU card and have an OTI supported e-mail account. Twenty-four hours after receiving an e-mail address, the username from the e-mail account is duplicated to create the FSUID. The user then goes to the FSUID website to assign a password. The next day, the user is able to use the FSUID to login to OMNI.

2 OPS: Other Personnel Services- Temporary and at-will employees usually student or part-time.
3.2 Problem Reporting and Tracking

Prior to the ERP project, OTI User Services spearheaded the task of finding a new ticketing system. There were several meetings with the different OTI divisions to discuss ticketing and support needs. After several meetings and e-mails, each department agreed to the following requirements:

- **Problem Reporting and tracking**: Must have the ability to track present and previous tickets and solutions. Keeping records of tickets allows technicians to track the history of technical issues and solutions for the department they support.
- **Search capabilities**: Must be able to search tickets by different criteria such as Customer Name, type of problem, department that handled the issue, etc.
- **Online customer support resources**: Give customers a quick and easy reference to frequent issues that can be resolved and the ability to report issues without calling the helpdesk.
- **Scalability**: The ticketing system can grow with the needs of the University without adding additional components or upgrades.
- **Easy to use and easy to train**: Our previous ticketing system became too expensive to maintain. After the licensing cost, an employee had to be trained which turned out to be very costly. If for some reason the person should leave, more money would have to be invested in training another individual.
- **Mobility**: The ability to access work tickets from any location on or off campus. Ideally, we wanted to have the capability to use wireless devices as well.
- **Customizable**: Expansions and changes are normal for an educational institution like Florida State University.

3.2.1 Ticketing Software Decision

US examined a variety of ticketing and problem reporting software products. The Parature ticketing system was introduced by the soon-to-be incoming director of User Services. Parature was demonstrated to the US, Office of Distributed and Distance Learning (ODDL) and AIS. Later that month, US and Parature representatives gave a joint presentation to ERP. Parature offered a comprehensive reporting and tracking solution that gives the ability to:

- Enable employees secure access to a Web Support Portal available anytime, anywhere
- Prioritize and manage all help desk work orders through a Trouble Ticket System
- Enable employees to check the status of work orders they've submitted online
- Allow employees to find existing solutions through a Self-Service Knowledge Base

All of the components of Parature were demonstrated during the first presentation. Any or all of these components can be integrated into one solution. Select modules were chosen to present to the AIM project directors. In May of 2004, the following components were chosen:

- **Parature eService** allows end users to locate knowledge base items such as past solutions to service requests, frequently asked questions, documentation and product briefs.
- **Parature eTicket** enables end users to submit trouble tickets (form-based support requests) through a support site. Parature eTicket enables help desk technicians to track, route and manage end user support requests.
- **Parature ePortal** contains elements to provide end users with self service options of reporting issues without calling the support help line during or after hours with the use of the on-line troubleshooter.
- **Parature eDownload** allows technicians to quickly upload utilities, applications and documents to the support site to make them available online.

Because Parature is web-based, the “SWAT” members had the ability to access ticket via the Internet to grab, assign, route and update tickets from any location on campus with a computer and a network connection. The self-service portal was advertised on the US and US Help Desk website. AIM agreed to advertise the help site through their OMNI Financial newsletter.

3.3 Ticketing Workflow

Problem reporting, work flow and ticketing design were developed by AIM and User Services to report and track tickets for the OMNI application. Routing rules were put into place to route automatically incoming tickets. Technicians were given logins, and queues were set up to hold routed tickets so they could be handled by their perspective departments. Ticket administrators were assigned to each group to monitor and escalate tickets between the groups. For example, usernames and passwords issues were usually resolved by the US Helpdesk. OMNI’s and FSUID’s own websites created additional login points; in case of
Callers were provided with two (2) phone numbers. The 644-8502 help line remained the contact number for computing and network support. Users were also given 644-OMNI to address OMNI questions, report bugs and input errors within the application. Tickets created by either help desk could be escalated to "SWAT" team technicians and Peoplesoft developers to research and resolve the problem. The US Help Desk handled many of the queues through which tickets and e-mails were routed.

Because the launch date of OMNI Financials was close, the US Help Desk had to be trained in Parature while still using the soon-to-be phased out Remedy ticketing system to report Network and other computing problems to ACNS and US technicians.

3.4 Staffing

There was little information that would assist in estimating the call volume during OMNI launch. The daily range of incoming calls to the US Help Desk was 80 to 125. The Secure application deployment project showed an increase of 50 additional calls. Another consideration that could elevate call volumes was student class registration. Summer registration call volumes averaged 200–300 incoming calls. The expected impact was less than half of the call volume received from Spring registration (400-500 incoming calls) and less than a third of the calls averaged for Fall registration (900–1300 incoming calls). After discussions between the US Help Desk supervisor and director, the decision was made to obtain additional staffing for the week of and 2 weeks after each OMNI launch.

4. APPLICATION SUPPORT

4.1 The Application Launch

Training was offered in May 2004 to administrative departmental representatives and academic support staff of FSU. 1000 out of 5000 support staff members were trained to use the OMNI application. Each department was required to send a representative to OMNI training. It was important to the AIM team that these departmental representatives have support and immediate response to OMNI related questions and problems. After a user completed training, the user was given access to a test site called the "OMNI Sandbox" to continue practicing what was taught in training classes. The US helpdesk provided support for the sandbox by explaining to users the training process and directing them to the OMNI training website.

The day prior to the OMNI launch, the US Help Desk had a higher than normal call volume due to the failure of the course registration system. In addition, many employees began to call the help desk concerning the FSUID process and the OMNI application.

The OMNI Financials module was launched on July 1, 2004. The unexpected heavy load of users trying to access the servers caused the FSUID site to crash and prevented OMNI server authentication. AIM and AIS technicians worked rapidly to restore servers. The problem with the FSUID server was quickly repaired by adding additional memory to the server.

The next day, FSUID login errors prevented users from logging in to the OMNI application. Tickets were issued and routed to the AIM and Peoplesoft development teams. Many of the login issues reported from the previous 2 days were related user accounts not being synchronized into OMNI from the FSUID server, or the user not being informed of the FSUID creation process.

4.2 Review of the Support Plan

Weeks after the OMNI Financial launch, Parature eReports showed that 101 users visited the us.fsu.edu/help self service portal. About one-fifth (20) of those users actually used the knowledge base to resolve their issues. Only 41 tickets were created relating to the OMNI application, 12 of those tickets created were marked as Log in problems, and 27 tickets were reported as problems inside the OMNI application.

Table 1 shows the amount of calls received and the amount of calls handled during OMNI Financials implementation. Many calls taken from the US and OMNI help desk were resolved by educating the user on how to receive an FSUID and how long it would take to activate. The lengthy explanation to users extended the phone technicians call time as well as switching back and forth from Parature to the old ticketing system, Remedy.

<table>
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This situation extended the length of time the US Help Desk technicians spent on a call to create a work ticket. The increase in call time prevented many users from getting through to a technician.

As the next week passed, both help desks started to inform users on the FSUID activation process to login to OMNI. US field technicians were instructed to stop using Remedy and start using Parature. The US Help Desk provided training to the US field technicians on how to use Parature and the FSUID creation and activation process.

Since many of the issues related to OMNI were reported and handled through the US Help Desk, revisions to the reporting process were made as well as a recognition of the need to increase education on the FSUID activation process.

4.3 Support Plan Revisions

The US computer help desk began planning the next OMNI deployment. Many of the issues The OMNI HR/Payroll modules would affect how work hours were entered and how much employees received on their pay checks.

After several OTI and ERP support meetings, the consensus decision was to make the following changes:
• Combine the OMNI and the US help line so that all calls route through the US Help Desk
• Have the FSUID activation process included in OMNI training classes
• ERP and Peoplesoft developers were given Parature logins so they could assist in troubleshooting OMNI problems (login problems).
• Give more in-depth training to US helpdesk and technicians so the help desk can resolve many of the issues while the user was on the line
• Limit the time spent on calls. If an issue could not be resolved within a 10 minutes, the US Help Desk would create a ticket so more users could get the help they need and reduce wait times.
• Transfer incoming calls identified as OMNI application issues by the US Help Desk to the OMNI help desk
• Show more information pulled from OMNI and computer account databases with the on-line FSUID/Helpdesk utility thereby make troubleshooting efforts more effective
• Have AIS develop a FSUID Search tool and offer it to department representatives to show who in their department has not activated their FSUID and advise those users on the process. Include the us.fsu.edu/help page in training classes to provide users an alternate way of reporting issues to reduce calls to the phone tree

January 3, 2005 was the beginning of the spring semester at FSU. Employees needing assistance would have to compete with incoming students on the help line. Unfortunately, the data transfer of information into the new module would not be complete until the end of December. However, if there was a problem with the OMNI application, AIM/ERP had access to switch users back to HRMS so everyone would be paid on time. A process of handling paycheck discrepancies was also put in place to ensure that university employees would get their paycheck.

FSUID departmental search page was tested and ready for deployment in November 2004. Representatives from each department used their FSUID to login and query all users in their department that have FSUIDs. This tool also gave the ability to create FSUID guest accounts for employees who do not have an official affiliation with the university but are paid by the university.

4.4 RESULTS OF THE REVISIONS
The OMNI HR/Payroll module of OMNI debuted on January 3, 2005. Additional staff, including the Director and Assistant Director, installed new phones so they could assist with handling calls in the phone tree. When reviewing the call statistics for that week, it showed that there was better percentage of calls being handled.

The OMNI and FSUID Server were able to handle the volume of users that accessed the servers and each had backup servers ready to take over just in case the main server went down. Parature reports showed over 1000 users visited the support site and over 150 users used the knowledge base to research their issues, most were relating to the new OMNI module. Only 30 tickets were created on the first day of the HR/Payroll module but the range of submitted tickets increased from 41 to 52 tickets during those two weeks. The revisions to the deployment plan had been highly effective.

5. CONCLUSION
Mandated changes to administrative functions required a lot of assistance from different divisions. Each division used their talents to help implement these changes and provide support to users affected. By-products of the OMNI deployment also helped streamline other support and administrative processes.

FSUID login authentication is now used by students, staff and faculty to access network resources such as wireless, bill payments, campus computing laboratories and on-line distance learning. The FSUID process is explained in new student and new employee orientations.

Many of the people in the AIM team and the OMNI help desk have returned to their prospective departments and some independent contractors of the AIM team are now employed with the university. The FSU training department assumed OMNI application training.

User Services now uses Parature for all problem reporting issues. The queue and workflow has been revised several times to incorporate other departments such as ACNS, FSU Computer Store and university’s Human Resources department, which now supports the OMNI HR/Payroll application. The US Computer help desk uses information from the OMNI deployment to develop support plans for other new applications that are used campus wide.

6. ACKNOWLEDGEMENTS
I would like to thank employees of the User Services Computer Helpdesk for their hard work and “going beyond the call of duty” many times during OMNI implementation. I would also like to recognize everyone who worked in the AIM/ERP project, AIS and User Services who met until late in the evening and worked long hours.

7. REFERENCES

Table 2. OMNI HR/Payroll Call

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