

## **Change Password Web Page**

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## **Abstract**

*At the beginning of each semester, the Florida State University (FSU) User Services helpdesk receives a tremendous number of phone calls. On the first day of the Fall 2001 semester, one thousand nine hundred sixty nine (1,969) users attempted to call the helpdesk; however, only five hundred forty nine (549) were successful in getting assistance.*

*The majority of these callers consisted of users who had forgotten the passwords to their email accounts. To reduce this number, the helpdesk manager and lead helpdesk technician coordinated an effort with the FSU Academic Computing and Networks Services (ACNS) to create a "Change Password Web Page" which would enable users to change their passwords on-line.*

## **Introduction of the Organization**

“The Florida State University is one of eleven units of the Division of Colleges and Universities of the Florida Board of Education. It was established as the Seminary West of the Suwannee by an act of the Florida Legislature in 1851 and first offered instruction at the postsecondary level in 1857. Its Tallahassee campus has been the site of an institution of higher education longer than any other site in the state. In 1905, the Buckman Act reorganized higher education in the state and designated the Tallahassee school as the Florida Female College. In 1909, it was renamed Florida State College for Women. In 1947, the school returned to co-educational status, and the name was changed to The Florida State University. It has grown from an enrollment of 2,583 in 1946 to an enrollment of 36,683 in the Fall Semester 2002” (The Florida State University Fall 2002 Fact Sheet).

The primary function of the Florida State University (FSU) User Services Helpdesk is to serve as the “entry point” of technical support for the Office of Technology Integration (OTI). In other words, all calls for computer-related support for the University are first channeled through the helpdesk.

The hours of operation are 7:00 a.m. to 9:00 p.m. Monday through Friday and 1:00 p.m. to 9:00 p.m. Saturday and Sunday. The helpdesk consists of fifteen (15) employees: nine (9) full-time employees, including the manager, and six (6) part-time employees. The full-time employees receive benefits and work eight hour shifts from 7:00 a.m. to 6:00 p.m. The part-time employees do not receive benefits and mostly consist of students from the University. The part-time employees work from 5:00 p.m.

to 9:00 p.m. and also work during the weekend hours with one full-time employee serving as shift supervisor.

Since the helpdesk is the first line of communication for computer users at FSU, its customer base is composed of the entire campus. For instance, in the fall 2001 semester (the year in which this “best practice entry” was implemented), the helpdesk’s customer base consisted of 35,400 students (undergraduate and graduate) and 5,400 employees (faculty and staff) — a ratio of 2,720 customers per helpdesk employee.

## **Statement of the Problem/Initiative**

At the beginning of each semester, the Florida State University (FSU) User Services helpdesk was experiencing an extremely high call volume. Our statistics indicate that on the first day of the 2001 fall semester, more than 72% of calls to the helpdesk were going unanswered. After further research, we discovered the majority of these callers consisted of users who had forgotten the passwords to their email accounts. To reduce this number, the helpdesk manager and lead helpdesk technician coordinated an effort with the FSU Academic Computing and Networks Services (ACNS) systems group to create a "Change Password Web Page" which would enable users to change their passwords on-line.

The first objective of this initiative was to reduce the number of calls the helpdesk received during our peak period of the year. The second objective was to improve customer service by 1) providing convenience to students, faculty, and staff, (i.e., the ability to reset their passwords and obtain access to their accounts, even when the helpdesk is not open) and 2) eliminating lengthy delays for service.

## Design

The individuals involved in the creation and implementation of the “Change Password Page” were the following:

- Fran Bridges, Systems Analyst - Creator of C.A.R.S. (Computer Account Registration System)
- Eric Hatch, Helpdesk Technician
- Eddie Yon, Helpdesk Manager

To create user accounts for students, FSU directs students to the Computer Account Registration System (C.A.R.S) web page – [Http://cars.acns.fsu.edu](http://cars.acns.fsu.edu) (See Figure 1).

The screenshot shows a web browser window displaying the Florida State University Computer Account Registration System (C.A.R.S) interface. The page title is "ACADEMIC COMPUTING AND NETWORK SERVICES Computer Account Registration System Student Account Registration". The form includes the following fields and instructions:

- FSU Card:** A text input field.
- Confirmation Number (or SSH):** A text input field.
- Do you want your eMail address published in the FSU eMail Directory?** Radio buttons for "Yes" (selected) and "No".
- Please Select a Password:** A text input field with instructions: "Must be 6-8 characters in length", "Must contain at least one non-alphanumeric", and "For example: --#P[[]]@-".
- Please Confirm:** A text input field.

Below the form, there is an **IMPORTANT!** section with the text: "You must read and accept the following guidelines to receive an ACNS account. Choose **Accept** or **Reject** at the end of this document."

Figure 1

At this page, users are allowed to create their email accounts by entering their FSU card number, social security number, and desired password. Since FSU already had

a web-based system in place to create accounts, Fran Bridges utilized the existing technology to create the Change Password Web Page, which meant that the University would not have to purchase any new equipment or any system solutions.

To create the Change Password Web Page, Ms. Bridges integrated the interface into the existing C.A.R.S. application by utilizing the same verification method that was presently used to create new accounts. For the sake of continuity and customer familiarity, Ms. Bridges also chose to keep the actual design of the Change Password Web Page very similar in look and feel to that of the New Accounts Creation page (<https://cars.acns.fsu.edu/CARS/password.html>) (See Figure 2).

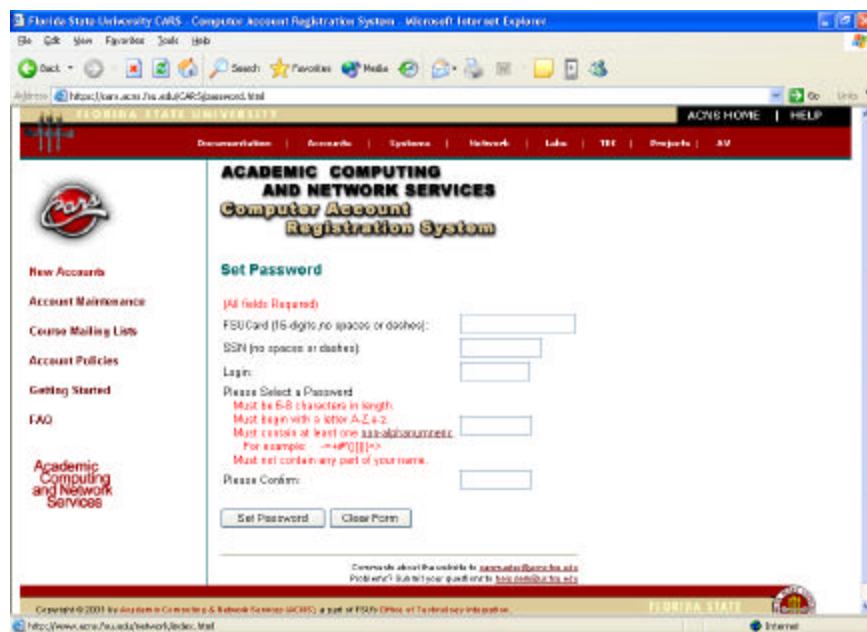


Figure 2

From the Change Password Web Page, users would submit their FSU card number, social security number, account logon and desired password. The new password then synchronized across all platforms on which the login resides. Synchronization required modification of the local user management system to facilitate timely processing

of password change requests. The Kerberos and LDAP databases were set to update in real-time, and the Unix servers were set to process requests on an hourly basis.

## **Implementation**

We began the pilot of the Change Password Web Page in March 2001 with the expectation of going on-line by August 2001, the beginning of the fall semester. One major challenge we faced was overcoming “security fears.” Some entities at the University felt that allowing on-line password changes would breach security. However, our stance on this matter was that we were utilizing the same technology and information that was currently being acquired to create accounts on-line and to reset the account passwords through the helpdesk.

The second hurdle we faced was the timing of implementation. Maintenance and troubleshooting would have been extremely difficult to accomplish during peak activities. Therefore, we implemented the change toward the end of our spring semester. This timing allowed us to use the upcoming summer sessions, which have a lower volume of students, as a simulation for the fall semester, our busiest time of the year. This implementation strategy worked out well because it provided ample time to perform troubleshooting and maintenance of the system before the fall semester rush.

## Benefits

The implementation of the Change Password Web Page brought benefits to the User Services helpdesk and to the students and faculty at Florida State University.

First, for the helpdesk, the Change Password Web Page reduced the number of calls received by the helpdesk.

In Coming Calls To The FSU Helpdesk		
Semester	Calls Received First Day	Calls Received First Week
Fall 2001	1969	5904
Fall 2002	1319	4575
Difference	(650)	(1329)

**Table 1**

As Table 1 reveals, on the first day of the fall 2001 semester, the helpdesk received one thousand nine hundred sixty nine (1,969) calls. After implementation of the Change Password Web Page, that number was reduced in the fall semester of 2002 to one thousand three hundred nineteen (1,319), decreasing our call volume by six hundred fifty calls (650).

During the first week of fall 2001 semester, the helpdesk received five thousand nine hundred four (5,904) calls. However, the next year with the Change Password Web Page in place, the weekly total of calls was reduced to four thousand five hundred seventy five (4,575)----one thousand three hundred twenty nine (1,329) fewer calls than the previous year.

Secondly, the Change Password Web Page assisted the helpdesk in reducing the time spent on the phone to change the user's password. The time spent by a helpdesk technician to change a user's password averaged about four (4) minutes. For each call, the helpdesk tech would have to verify the identity of the student by asking for social security and FSU Card number. Then after successful verification, through a separate C.A.R.S. interface built by Fran Bridges, the technician would change the student's password. With the creation of the Change Password Page, technicians can easily divert users to the page and have the users change their own passwords. This reduces time on the phone with users and allows the helpdesk to receive more calls in the process.

Based on the time saved, we should have seen a more significant difference in the amount of calls answered by technicians. The reason this did not occur is because at the time two full-time technicians had resigned from the helpdesk, and one full-time technician was on medical leave. However, even with three technicians gone, the implementation of the Change Password Web Page enabled the helpdesk to answer 21.6% more calls.

For the students, the Change Password Web Page enabled them to reset their passwords without physically going to the helpdesk or calling the helpdesk. During the peak times, it was virtually impossible for users to get their passwords without waiting in line or on the phone for a technician. The Change Password Web Page also gives students the freedom to change their passwords outside of the helpdesk work hours and does not force them to "wait until the next day" if they forget their password during hours in which the helpdesk is not open.

For the University as a whole, the Change Password Web Page granted users with problems other than password changes (such as printer IP number changes performed while the users were away for the summer break) an increased probability (from 28% to 50%) of receiving prompt technical support during the busiest time of the year.