

FSA Modernization Partner
United States Department of Education
Federal Student Aid



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Maintenance Services Report
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1 Introduction

1.1 Executive Summary

The *Technical Architecture Application Maintenance Report: March 2002 for FY 2002* summarizes the Integrated Technical Architecture (ITA) team's tasks related to resolving issues associated with the maintenance of FSA applications in production, for the specified month. The ITA provides a standardized, reusable infrastructure for enabling business capabilities within the FSA application community. The long-term vision of the ITA is to provide an integrated, enterprise-wide technical architecture that will enable FSA to reduce the number of custom-built applications that are difficult and costly to update and maintain.

2 FSA Applications Maintained by the ITA in Production

- FAFSA – the Free Application for Federal Student Aid on the web is an application used by college students and schools to submit financial applications via the Internet
- IFAP – Information for Financial Professionals web site is an electronic library for financial aid professionals containing publications, regulations, and guidance regarding the administration of Title IV Federal Student Aid Programs
- SFA Intranet – is an internal portal, for FSA employees, that provides general information about FSA, FSA Channels, and the Department of Education. The portal also houses information about FSA standards
- Schools Portal – is a homepage for Schools-specific information with links, headlines and calendar function frequented by the schools. The site is customizable and can store bookmarks
- eCampus Based – FSA initiated the Institution or Campus Based (CB) Modernization project. The intent of the project is to modernize the existing CB application architecture; migrating from the current platform (COBOL, IBM Mainframe, VSAM data store) to a relational database platform (Oracle), developing a web-based user interface (WebSphere), along with additional software functionality enhancements. This modernized solution is named eCB (electronic Campus Based). The main objective of the modernization effort is to offer institutions and CB staff an integrated and intuitive solution that increases access to information and self-service capabilities supporting FSA's strategic goals



- Financial Partners Data Mart – provides executive information and decision support capabilities around several key business functions for both the Guaranty Agencies (GAs) and the Lenders. The Data Mart initiative provides infrastructure within the channel and provides initial Risk Management, Customer Relationship Management, Compliance Management, and Portfolio Management functionality related to the thirty-six Guaranty Agencies and the approximately four thousand lenders
- CFO Data Mart – provides reporting capabilities to the Chief Financial Office implementing MicroStrategy and Informatica
- Exit Counseling – utilizes WebSphere and MQ Series to access NSLDS mainframe for specific information
- Students.gov - an award-winning interagency portal sponsored by FSA that provides access to a wide range of public and private information and services targeted towards prospective and current post-secondary education students and their parents

3 ITA Products

- IBM HTTP Server – web server
- IBM WebSphere – Java application server
- Network Dispatcher – cluster load balance and failover
- Interwoven – content management application
- Informatica – mainframe data tool that converts mainframe data for Oracle so reports can be generated by MicroStrategy
- Autonomy – search engine
- Viador / JRun – Viador is the product or application for the Schools Portal and JRun is the application server

4 Issue Matrix

The following matrix details the issues encountered by the ITA team from March 1, 2002 to the end of March 2002. The matrix is organized chronologically by application name and date to illustrate the team's progress in resolving the majority of issues and the instances in



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which the team directed its efforts to seek resolution for an issue. Subsequently, the matrix consists of the following categories: name of the application connected to an issue, description of the issue, steps taken by the ITA team to resolve an issue, the issue's level of priority ranging from high to medium to low, the issue's status whether new, in progress, or closed, and the issue's resolution date. Some issues span a greater time period and closure may not have been possible before the deadline of this report.



5 Issue Resolution Log

Date Opened	Application	Description	Resolution	Priority	Issue Status	Issue Resolution Date
Mar 4, 2002	Schools Portal	Schools Portal application server failed to respond to requests when processing InfoServlet class.	Restarted Viador and JRUN servers.	High	Closed	3/4/2002
Mar 12, 2002	Schools Portal	Schools Portal application server failed to respond to requests when processing InfoServlet class.	Restarted Viador and JRUN servers.	High	Closed	3/12/2002
Nov. 7, 2001	Autonomy	Search engine returning incorrect results according to application teams. Google search was compared to Autonomy search, producing different results, respectively. Autonomy search engine was also reported as returning inconsistent results.	The ITA team is working with the application team to determine requirements for searching and modifying Autonomy to provide adequate search results for each application.	Medium	Ongoing	N/A
Mar. 4, 2002	Interwoven	Interwoven server couldn't migrate content to production servers.	Interwoven OpenDeploy agent was not listening properly on production server (E9). The service was restarted and the problem was resolved.	Medium	Closed	03/04/2002
Mar 18, 2002	Interwoven	Interwoven server couldn't migrate content to production servers.	Interwoven OpenDeploy agent was not listening properly on production servers (E9 & E13). The service was restarted and the problem was resolved.	Medium	Closed	3/18/2002
Mar 27, 2002	Interwoven	Interwoven user could not migrate updated content to development server.	It appeared to be a server failing to respond to requests within OpenDeploy that was not deploying the most	Low	Closed	3/27/2002



Date Opened	Application	Description	Resolution	Priority	Issue Status	Issue Resolution Date
		to development server.	recent content. TeamSite server was restarted and the problem was resolved.			
Mar 5, 2002 – Mar 29, 2002	Interwoven	To accommodate some of the Autonomy enhancements that are being implemented, Interwoven templates required updating to provide adequate data for Autonomy to index.	All datacapture templates were updated with Publication Date information to allow Autonomy to search against this type of field to provide better results to the user. The application owner is still analyzing the results. A production upgrade is tentatively scheduled for April 9, 2002.	Medium	Ongoing	N/A
Mar 1, 2002 – Mar 29 2002	FAFSA	WebSphere is recreating the table in the session database when it restarts under a heavy load. This issue has been seen three times in the production environment. [Normal behavior entails a WebSphere connection to the database, not recreating the database]	ITA team is currently working with IBM to resolve this problem. A fixpack has been provided to determine the cause of the database recreation, but it has not been implemented due to impact on a production environment. This fixpack has been installed in the development environment, but the problem cannot be recreated here due to insufficient load on the session database.	Medium	Ongoing	N/A
Mar 1, 2002 – Mar 29, 2002	FAFSA	ITA team was tasked with transitioning FAFSA Operations tasks to the VDC team. These tasks involve the maintenance and configuration of WebSphere and Network Dispatcher.	Ongoing meetings with CSC have been established to transition all tasks involved with FAFSA operations to their team. This task was finalized March 15, 2002. The ITA continues to support the CSC operations team as needed.	Low	Ongoing	N/A



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Date Opened	Application	Description	Resolution	Priority	Issue Status	Issue Resolution Date
Mar 1, 2002 – Mar 29, 2002	FAFSA	Weekly FAFSA production calls have been scheduled to address issues.	The ITA team has been continuously represented at these meetings and ensured that issues are being resolved promptly.	Low	Ongoing	N/A
Mar 1, 2002 – Mar 29, 2002	FAFSA	Current FAFSA production contains excess number of servers to support the off-peak environment. A proposal was drawn up to determine the number of servers needed and available for this environment.	The ITA team developed a proposal for an environment that would support FAFSA off-peak requirements. This configuration consisted of existing servers with some excess servers. These extra servers are to be utilized for an HP performance test environment. The schedule has been agreed and change requests are pending to decommission servers in the production environment.	Low	Ongoing	N/A
Mar 1, 2002 – Mar 29, 2002	FAFSA	Web server processes are failing to respond to requests with I.H.S and causing a single CPU to peak at 100% utilization. The application is not impacted, but the server performance is skewed.	This is an ongoing problem. IBM has recommended an upgrade to I.H.S, but this must be tested throughout each environment. A temporary solution is to kill the process that is hanging the CPU and performance resumes normally. A schedule to upgrade the version of I.H.S will be presented. This upgrade must be executed and tested in each environment before it can be moved into production.	Low	Ongoing	N/A
Mar 25, 2002 – Mar 27, 2002	Students.gov	The Students.gov application has completed its testing and development phases. The ITA team was tasked with the build of production environment for	Scripts were provided to the CSC operations team to execute during the build of the production environment. CSC was able to complete the	Med	Closed	Mar 29, 2002



Date Opened	Application	Description	Resolution	Priority	Issue Status	Issue Resolution Date
2002		the Students.gov site.	production environment with assistance from the ITA team.			
Mar 10, 2002	Campus Based	The Campus Based application maintenance contractor requested eCB log files from the production environment. The contractor does not currently have connectivity to the VDC, and is unable to acquire the log files independently.	The ITA team downloaded the log files specific to this application and sent them to the contractor. The log files were of significant volume so this process did take a couple of hours.	Low	Closed	Mar 10, 2002
Mar 15, 2002 – Mar 29, 2002	Campus Based	The eCB application is planning its second release for the end of March or beginning of April timeframe. Changes in WebSphere are required for this release.	The ITA team developed scripts and submitted a change request to CSC to schedule the implementation of this second release of eCB. The final date of the second release of eCB is still outstanding so this request has yet to be scheduled.	Medium	Ongoing	N/A



6 Search Engine Enhancements

The following is a table outlining enhancements to the Search capability for the IFAP application which were performed by the ITA team

Enhancements		
Mar 1, 2002 – Mar 29, 2002	Autonomy	The ITA team has been preparing for an Autonomy software component upgrade with further enhancements to enable Date Range and Keyword searching. Autonomy was upgraded on development & test environments. Also modified was the RCS Search and the Custom RCS Search Tag Library for proper Date Range and Keyword searching, making necessary configuration changes in the new Autonomy software components to match. The ITA also designed and wrote PERL scripts for Interwoven profiles data conversion and assisted in Interwoven template modifications. We also worked closely with the Operations team to merge their modifications for search help/instructions. A change request form has been submitted to CSC and confirmed for production upgrade, scheduled for April 10.