

FSA Integration Partner

United States Department of Education

Federal Student Aid



F E D E R A L
S T U D E N T A I D
We Help Put America Through School

ITA Knowledge Transfer Report

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1 Introduction

1.1 ITA Overview

The Integrated Technical Architecture (ITA) provides a standardized, reusable infrastructure for enabling business capabilities within the FSA application community. The long-term vision of the ITA team 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.

1.2 Executive Summary

The ITA Knowledge Transfer Report (June 13, 2003) documents the Knowledge Transfer support to selected employees of FSA's choosing. The following is a brief overview of the contents of each section of this report:

Section 1 Introduction:

- Provides an account of the application and products that ITA currently maintains.

Section 2 Knowledge Transfer Status

- Summarizes the actions taken by the ITA team in performing the Knowledge Transfer

1.3 FSA Applications

This section provides an overview of FSA applications hosted in the ITA production environment. The ITA team provides maintenance services to these applications:

1.3.1 eCampus Based

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.

The eCampus Based application receives support for WebSphere Application Server, IBM HTTP Server, and Network Dispatcher.

1.3.2 Exit Counseling

Exit Counseling is the process students go through prior to graduation, and it is the beginning of the repayment phase of the financial aid process. The Exit Counseling application utilizes



WebSphere and MQSeries to access the National Student Loan Data System (NSLDS) mainframe to retrieve appropriate loan information.

ITA provides WebSphere Application Server and IBM HTTP Server product support to the Exit Counseling application.

1.3.3 Free Application for Federal Student Aid on the Web (FAFSA on the Web)

The FAFSA on the Web application is used by college students and schools to submit financial aid applications to FSA via the Internet.

ITA provides FAFSA on the Web with support for WebSphere Application Server, IBM HTTP Server, and Network Dispatcher.

1.3.4 Financial Partners Data Mart (FP Data Mart)

The FP Data Mart initiative 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.

FP Data Mart receives ITA support for the Informatica product.

1.3.5 FSA Computer-Based Orientation to Aid Concepts and How-to's (FSA COACH)

FSA COACH is a comprehensive introductory course on school requirements for administering post-secondary student financial aid programs.

ITA provides Network Dispatcher and IBM HTTP Server product support to the FSA COACH application.

1.3.6 FSANet

FSANet is an internal portal for FSA employees. It provides general information about FSA, FSA Channels, and the Department of Education. The portal also houses information about FSA standards.

ITA provides WebSphere Application Server, IBM HTTP Server, and Network Dispatcher product support to the FSANet Application.

1.3.7 Information for Financial Aid Professionals (IFAP)

The IFAP website is an electronic library for financial aid professionals containing publications, regulations, and guidance regarding the administration of Title IV Federal Student Aid Programs.

IFAP receives ITA support for WebSphere Application Server, IBM HTTP Server, and Network Dispatcher.

1.3.8 Lender Reporting System (LaRS)

LaRS is part of the Financial Management System phase IV project. LaRS is an Oracle Financials based application that improves the reliability of lender billing data through a redesigned loan payment process.

ITA provides Network Dispatcher product support to the LaRS application.



1.3.9 Ombudsman Redesign

The Ombudsman website contains information and resources about FSA Ombudsman. The site contains searchable content and links to quickly retrieve information.

ITA provides WebSphere Application Server, IBM HTTP Server, and Network Dispatcher product support.

1.3.10 Program Guidance

The Program Guidance application provides a central location for resources needed by the Program Development Division within FSA. The application provides documents and profiles to identify relevant information quickly for members of this division.

ITA provides WebSphere Application Server, IBM HTTP Server, and Network Dispatcher product support.

1.3.11 Schools Portal

The Schools Portal is a homepage for school-specific information with links, headlines, and calendar functions frequented by the schools. The site is customizable and can store bookmarks.

ITA provides WebSphere Application Server, IBM HTTP Server, Interwoven, Autonomy, and Network Dispatcher product support.

1.3.12 Students & Financial Partners Portal

Portals were developed for the Students and Financial Partners channels to provide a central location for information needed by students and financial partners.

ITA provides WebSphere Application Server, IBM HTTP Server, Interwoven, Autonomy, and Network Dispatcher product support.



1.3.13 Table of FSA Application Release Numbers

The table below presents the release numbers of the FSA applications supported by the ITA team in the production environment.

Application	Current Release Number
eCampus Based	3.0
Exit Counseling	-
FAFSA on the Web	7.0
FP DataMart	2.0
FSA COACH	1.0
FSANet	2.0
IFAP	2.0
LaRS	4.11
Ombudsman	-
Program Guidance	1.0
Schools Portal	2.0
Students & Financial Partners Portal	Students - 1.1 FP - 2.0



1.4 ITA Products

This section provides an overview of ITA products used by FSA applications hosted in the ITA production environment.

1.4.1 IBM HTTP Server

IBM's web serving offering is based upon the Apache web server. The implementation that IBM has custom tailored allows for tight integration into the IBM WebSphere applications and other IBM products. It allows for the serving of multiple web documents, while providing necessary application interaction.

1.4.2 IBM WebSphere Application Server

The IBM WebSphere Application Server manages, deploys, programs, and integrates development like IBM's WebSphere. It makes use of Java technology compatibility for most web application offerings. One of its most useful features is that it is a highly configurable solution for a small offering or a large enterprise. It is the middleware between the HTTP servers and the databases.

1.4.3 Network Dispatcher

This IBM product is an integrated portion of the IBM Edge Server. Network Dispatcher provides load balancing. It administers the resource balancing between clusters of web servers and application servers. It is one of many components within the network architecture that allows for high availability.

1.4.4 Interwoven TeamSite

As the flagship product of the Interwoven Platform, TeamSite enables content contribution, collaboration, and management across the enterprise. It provides the necessary components to streamline business processes, integrate currently used productivity tools, and accelerate all eBusiness initiatives.

1.4.5 Informatica

Informatica is a mainframe data tool that converts mainframe data for Oracle so MicroStrategy can generate reports.

1.4.6 Autonomy

Through the use of Autonomy the entire Internet offering is easily parsed into a searchable resource. Users can seamlessly search for content throughout enterprise offered information. It does this through its connectors that combine varying forms of resources (databases, html pages, e-mails, etc.) into one easily accessible resource.



1.4.7 Viador/JRun

Viador software acts as a filter for enterprise information to enable delivery to employees, customers, or any other group in need of focused information. This package is highly scalable for any implementation and more importantly is built on a flexible architecture that adapts to any project.

Viador runs on top of the JRun application server. Jrun is an offering from Macromedia that provides a fast, affordable, and reliable solution for Java application delivery.

1.4.8 Microstrategy

This product provides reporting, analysis, and information delivery capabilities.

1.4.9 Table of ITA Product Software Versions

The table below presents the version(s) of the software products installed in the ITA production environment.

Software Product	Current Version
IBM HTTP Server (IHS)	v1.3.12
WebSphere Application Server (WAS)	v3.5.6 (HP machines) v3.5.5 (SUN machines)
eNetwork Dispatcher	v4.0.2.25
Interwoven TeamSite	v5.0.1
Informatica	v5.1.2
Autonomy	v3.1.13.2
Viador	-
JRun	-
Microstrategy	v7i
Solaris	v2.8



2 Knowledge Transfer Status

2.1 Enterprise Searching Solution

ITA met with FSA (Ganesh Reddy, Sandy England, and Terry Woods) to discuss the implementation of Autonomy on FSA applications, as well as the advantages and disadvantages of moving to the Google Search Appliance solution. Subsequently, based on the feedback provided by Ganesh to ITA, the updated Autonomy vs. Google presentation was sent to Terry Woods.

Per FSA's request, ITA provided Terry Woods and Sandy England with a soft copy of Google's Confidential Search Protocol Reference (xml_reference.htm) . This document details search request and results format. A Google search request is comprised of search parameters, query terms, filtering options, sorting, and meta tags. The Google Search appliance can return results in a variety of formats, including default/custom HTML and XML. Product specifications and limitations can be drawn from this document.

2.2 RCS

ITA Provided the following RCS-related documentation to Terry Woods:

- 1) 46.1.3_ITA_R2.0_Technical_Specification_v.1.0.doc
- 2) 46.1.4 - ITA RCS Build Test Report v5.doc
- 3) ITA R3 RCS - Revised July 12, 2002.ppt
- 4) 69.1.3 ITA Release 3.0 Technical Specification v2.zip
- 5) 69.1.5_ITA_R3.0_BuildTest_Report_RESUBMIT_121602 v1.0.zip

2.3 WebSphere Upgrade

ITA conducted and provided Terry Woods the following:

- 1) Workplan for the FAFSA Product Software Upgrade (Internet HTTP Server, WebSphere, HP Operating System and MQ)
- 2) Included in all weekly discussion and planning sessions with FAFSA application development team and Data Center Hosting team.
- 3) Continuous updates of all open issues and potential upgrade work planning impacts
- 4) Provided copies of the most recent version of the ITA Environment Diagrams.
- 5) Contingency plan documentation for options to support continuous break/fix environment availability for the application development team.
- 6) Presented and discussed the proposed Websphere upgrade approach.