
US Department of Education



FAFSA on the Web Redesign Vision Document DRAFT Version 3.0

FAFSA on the Web Redesign	Version: 3.0
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Revision History

Date	Version	Description	Author
7/28/00	1.0	Initial Draft	Modernization Partner
8/9/00	2.0	Revision after Vision Review	Modernization Partner
8/11/00	3.0	Revision after Vision Review	Modernization Partner
8/22/00	3.1	Added Risk and Mitigation Strategies Section	Modernization Partner (USI)

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1. Introduction

The US Department of Education's Office of Student Financial Assistance Programs (SFA) administers and operates the "Free Application for Federal Student Aid" (FAFSA), a web site used by US college students to submit financial applications via the Internet. During the 2000-2001 academic year, over two million students used the site to apply for federal financial aid; SFA expects that count to double during the 2001-2002 academic year and to continue to rise in future years. This anticipated growth makes it imperative that SFA maximize the availability of the FAFSA on the Web server while at the same time minimizing the amount of support SFA's representatives will have to provide for students.

The primary objective for redesigning FAFSA on the Web is to improve customer satisfaction by providing the student who uses the site a complete user experience in applying for Federal, State and Institutional aid. The areas of focus will be:

- Usability
- Technical Capacity (technical infrastructure and application performance)
- Leveraging industry best practices around human interaction models for Web-based solutions

As a means to accomplish this objective a team consisting of multiple stakeholders in the FAFSA on the WEB initiative and operating under the Modernization Partner Program was assembled to:

- Gather and document the high level requirements for FAFSA on the Web
- Identify the proper release cycle for each requirement
- Document the detailed requirements for the first release of the FAFSA on the Web redesign
- Provide project management for task order activities
- Develop high level project plan to redesign FAFSA on the Web

Specific areas to be addressed include:

- FAFSA on the Web Application process
- FAFSA on the Web Correction process
- FAFSA on the Web Renewal process
- FAFSA on the Web PIN

1.1 Purpose

The purpose of this document is to collect, analyze and define high-level needs and features of the *FAFSA on the WEB system*. It focuses on the capabilities needed by the stakeholders, and the target users, and why these needs exist. The details of how the *FAFSA on the WEB system* fulfills these needs will be detailed in the use-case model and supplementary specifications.

1.2 Scope

This document represents the product of several requirements-gathering workshops hosted by SFA during July and August 2000. The goal of the workshops was to develop a **broad** vision of functionality that might be included in the redesigned FAFSA on the Web system. The features described later in this document therefore significantly broaden the scope of FAFSA on the Web. The redesign team will prioritize these features and determine which will be included in the detailed requirements for the initial release of the redesigned FAFSA on the Web.

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1.3 Definitions, Acronyms and Abbreviations

Will be referenced in a FAFSA on the WEB Glossary which is yet to be completed.

1.4 References

FAFSA Web Performance Report, Beacon Technologies, June 2000

FAFSA on the Web 2000-2001 Requirements, NCS, June 2000

Integrated Technical Architecture Detailed Design Document (Revision 0), SFA Modernization Partner, July, 2000

Meeting Notes from the FAFSA on the Web Redesign High-level Requirements Workshops (July 18 – August 1, 2000), Modernization Program - FAFSA on the WEB Redesign Team, August, 2000

SFA WEB Graphical User Interface Guidelines, v1.6 - Draft (June 20, 2000)

FAFSA on the WEB 2001-2002 Requirements, NCS, August 2000

2. Positioning

2.1 Opportunity

The opportunity being met by this project is an effort to “modernize” FAFSA on the Web. This will be done by introducing a user interface that is easier, faster, more efficient and less error-prone and by using a “back-end” that is scalable, maintainable, extensible and more easily integrated with both existing systems and the planned SFA Enterprise Application Integration (eAI) bus architecture.

2.2 Problem Statement

The problem of	less than optimal customer satisfaction in applying for federal, state and institutional aid
affects	<ul style="list-style-type: none"> • Students • Financial aid administrators • SFA
The impact of which is	fewer applicants use FAFSA on the Web resulting in higher costs due to manual processing of applications.
A successful solution would	<ul style="list-style-type: none"> • significantly reduce the time and effort required to submit, correct and renew an application • be appealing and accessible to the majority of applicants • improve the accuracy of submitted applications • provide a complete user experience in applying for Federal, State and Institutional aid.

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3. Stakeholder and User Descriptions

3.1 Stakeholder Summary

Name	Represents	Role
Students	Primary end-users of the system	<ul style="list-style-type: none"> Primary users of the system Provide primary feedback on the usability of the system
Parents	Primary or secondary users of the system	<ul style="list-style-type: none"> Provide data for application process Provide signature authority for application submission of dependent students
Schools	Secondary users of the system	<ul style="list-style-type: none"> Consumers of data from the system Provide student access to the system
Third-party Vendors	Xap, CSUmentor, etc.	<ul style="list-style-type: none"> Interact with FAFSA on the Web
Customer Service Representatives (CSRs)	Secondary users of the system	<ul style="list-style-type: none"> Replicate student sessions to provide help
Congress	Regulatory stakeholder, Non-system user	<ul style="list-style-type: none"> Provide regulatory oversight
States	Schools within state	<ul style="list-style-type: none"> Consumers of data from the system Provide student access to the system
COO	Head of SFA	<ul style="list-style-type: none"> Provide vision and executive leadership
CFO	Branch of SFA	<ul style="list-style-type: none"> Consumer of data from the system
OGC	Branch of ED	<ul style="list-style-type: none"> Provide legal oversight
Office of Inspector General	Branch of ED	<ul style="list-style-type: none"> Consumer of data from system in order to perform data audit
Office of Management and Budget	Branch of Federal Government	<ul style="list-style-type: none"> Approval of site regarding forms compliance
CIO	Branch of SFA	<ul style="list-style-type: none"> Provide technical oversight
CSC	Contractor running Virtual Data Center (VDC)	<ul style="list-style-type: none"> Hosts FAFSA on the Web House Main Frame Database

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Name	Represents	Role
		(CPS)
Students Channel	Site owner with requirements responsibility	<ul style="list-style-type: none"> Approval for all site components Acceptance of iterative and final site deliverables
Andersen Consulting	Primary contractor for development of FAFSA on the Web	<ul style="list-style-type: none"> Project oversight Lead SFA modernization partner
NCS	Current site developer and administrator Domain expert on FAFSA on the Web	<ul style="list-style-type: none"> Current 2001-2002 FAFSA on the Web developer Responsible for system maintenance
Beacon	Expertise for Usability and Architecture	<ul style="list-style-type: none"> Consultant to FAFSA on the Web
USI	Subcontractor to Andersen in development of new FAFSA on the Web	<ul style="list-style-type: none"> Primary lead in full lifecycle development of FAFSA on the Web

3.2 User Summary

Name	Description	Stakeholder
English Speaking Student	Primary end-user	Represented by Stakeholder "Student"
Non-English Speaking Student	Primary end-user	Represented by Stakeholder "Student"
Web Literate Student	Primary end-user	Represented by Stakeholder "Student"
Non-Web Literate Student	Primary end-user	Represented by Stakeholder "Student"
Physically disabled Student	Primary end-user	Represented by Stakeholder "Student"
Parent as student	Primary end-user	Represented by Stakeholder "Student"
Parent as data provider and signatory	Secondary end-user	Represented by Stakeholder "Parent"
School	Secondary end-user	Represented by Stakeholder "Schools"
Customer Service Representatives	Secondary end-user	Represented by Stakeholder "CSRs"

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Name	Description	Stakeholder
SFA Students Channel	Primary and Secondary end-user	Represented by Stakeholder "Students Channel"
States	Secondary end-user	Represented by Stakeholder "States"
Third Party Vendors	Secondary end-user	Represented by Stakeholder "Third Party Vendors"

3.3 User environment

The primary end-users of the system will be students who will access the system via the Internet from their homes, schools, libraries or any other public or private location with Internet connectivity. Several environmental factors will impact the ability of the students to use the system, including:

3.3.1 *Browser brand and version*

3.3.2 *Internet service provider (e.g., AOL, free Internet services, etc.)*

3.3.3 *Quality and speed of connection*

3.3.4 *Physical constraints (e.g., the student is visually impaired, unable to use a keyboard, etc.)*

3.3.5 *Native language*

3.3.6 *Level of familiarity/comfort with computers and the Internet.*

3.4 Stakeholder Profiles

3.4.1 *Format of tables in this section (from the Rational RequisitePro template)*

Representative	Who is the stakeholder representative to the project (optional - if documented elsewhere)? What we want here is names!
Description	Brief description of the stakeholder type
Technical Awareness	Qualify the expertise of the stakeholder i.e. GURU, BUSINESS EXPERT, CASUAL USER etc i.e. Technical background and degree of sophistication
Responsibilities	List the key responsibilities of the stakeholder with regards to the system being developed (i.e. their interest as a stakeholder).
Success Criteria	How does the stakeholder define success? How is the stakeholder rewarded?
Involvement	How the stakeholder is involved in the project - relate where possible to RUP workers (i.e. Requirements Reviewer etc.)
Deliverables	Any additional deliverables required by the stakeholder. These could be project deliverables or output from the system under development.
Comments / Issues	Problems that interfere with success and any other relevant information

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3.4.2 Students

Representative	SFA
Description	Student is representative of the key (primary) user of the system with varying skill levels, ages, languages spoken and possible physical disabilities.
Technical Awareness	Student will have varying degrees of technical skills, from none to expert. Student will have varying degrees of financial aid knowledge, from new to experienced.
Responsibilities	Student is the primary (key) end-user of the system. Student interaction with the system will/may involve application submission, correction to application or renewal of application.
Success Criteria	Realizing complete user experience in applying, changing and renewing applications using FAFSA on the Web. Improved accuracy in submitting applications using FAFSA on the Web.
Involvement	Focus group, usability testing and beta testing participants, will also provide feedback.
Deliverables	Application questions, application status, EFC calculations, SAR.
Comments / Issues	None

3.4.3 Parents

Representative	SFA
Description	Parents is representative of a primary or secondary user to the system.
Technical Awareness	Parents will have varying degrees of technical skills, from none to expert. Parents will have varying degrees of financial aid knowledge, from new to experienced.
Responsibilities	Parent as primary user will use the system as student. Parent as secondary user will provide data for application submission and act as signature authority to dependent student applicants.
Success Criteria	Successful completion and submission of FAFSA on the Web.
Involvement	Focus group and usability testing participants.
Deliverables	Application questions, application status, EFC calculations, SAR.
Comments / Issues	None

3.4.4 Schools

Representative	SFA
Description	School is representative of a secondary user to the system.
Technical Awareness	School will have varying degrees of technical skills, from none to expert.
Responsibilities	School will be a consumer of data from the system. School may provide access to the system for students through "labs," FAA offices, libraries, etc.
Success Criteria	Reduced administrative burden and costs, easy access to student data, fast turn-around, data accuracy and meeting state and local deadlines.
Involvement	Focus group, usability testing and beta testing participants.
Deliverables	Sends data elements from ISIR to specific school and provides online access to data.
Comments / Issues	None

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3.4.5 *Third Party Vendors*

Representative	SFA
Description	Developers of third party online applications products.
Technical Awareness	Third Party Vendors will generally have a high degree of technical skills.
Responsibilities	Third Party Vendors may integrate with FAFSA on the Web.
Success Criteria	Ability to successfully integrate with FAFSA on the Web.
Involvement	Integration testing.
Deliverables	API documentation.
Comments / Issues	None

3.4.6 *Customer Service Representative (CSR)*

Representative	Pat Struve
Description	CSR will provide support to primary users of the system.
Technical Awareness	CSR will have a high degree of technical skills.
Responsibilities	CSR will provide content and technical support to primary users of the system.
Success Criteria	Fewer support calls, less transfers, quicker resolutions and overall customer satisfaction.
Involvement	Focus groups and functional testing within usability.
Deliverables	Access to student data and application status.
Comments / Issues	Problems that interfere with success and any other relevant information

3.4.7 *Congress*

Representative	SFA
Description	Congress is representative of non-user of the system.
Technical Awareness	NA
Responsibilities	NA
Success Criteria	Regulatory compliance, cost reduction and happy constituents.
Involvement	Review and comment on demonstrations and screen shots.
Deliverables	None
Comments / Issues	None

3.4.8 *States*

Representative	SFA
Description	States are representative of a secondary user to the system.
Technical Awareness	States will generally not have a high degree of technical skills.
Responsibilities	States will be a consumer of data from the system and will provide students access to the system.
Success Criteria	Reduced administration burden and costs, easy access to student data, fast turn-around, data accuracy and meeting state and local deadlines.
Involvement	Future focus group participant.
Deliverables	CPS sends data elements from ISIR to specific state.
Comments / Issues	None

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3.4.9 SFA COO

Representative	Greg Wood
Description	COO is representative of non-user of the system.
Technical Awareness	COO will have a high degree of technical skills.
Responsibilities	COO is the Executive Sponsor
Success Criteria	Successful launch of FAFSA on the Web site, which provides students a complete user experience and exceeds customer expectations.
Involvement	Executive oversight and final site acceptance
Deliverables	A better than World Class application.
Comments / Issues	None

3.4.10 Other SFA Stakeholders

3.4.10.1 Office of General Council (OGC)

3.4.10.2 Office of Inspector General (OIG)

3.4.10.3 SFA Chief Financial Officer (CFO)

Representative	SFA
Description	OGC, OIG and CFO will have indirect contact with system.
Technical Awareness	NA
Responsibilities	OGC, OIG and CFO will provide oversight.
Success Criteria	Available access to FAFSA on the Web information when needed.
Involvement	No direct involvement.
Deliverables	Complete and accurate application that conforms to Federal regulations.
Comments / Issues	None

3.4.11 Office of Management and Budget (OMB)

Representative	SFA
Description	OMB is representative of a non-user to the system.
Technical Awareness	NA
Responsibilities	OMB must approve the FAFSA on the Web site and validate the site against the paper application.
Success Criteria	Reduced costs and compliance to all related acts of Congress.
Involvement	Review and comment on screen shots. Approve site.
Deliverables	System screen shots for review. Live walk-through of site.
Comments / Issues	None

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3.4.12 CIO

Representative	Sandy England and Helene Epstein
Description	Department of Education Office of Chief Information Officer.
Technical Awareness	CIO will have a high degree of technical skills.
Responsibilities	CIO will provide technical oversight to the FAFSA on the Web redesign project, incorporate Rational training and processes and guide project to meet enterprise vision. Owner of IT Standards.
Success Criteria	Successful completion and launch of FAFSA on the Web that exceeds stakeholder needs. FAFSA on the Web developed in accordance with the SFA modernization blueprint.
Involvement	Domain Experts and redesign team member.
Deliverables	Rational artifacts and inputs to the Enterprise Data Model. Outputs from the Enterprise Data Model. Independent Verification and Validation (IVV). Rational training.
Comments / Issues	None

3.4.13 CSC

Representative	Office of CIO: John Hsu, David Elliott (ITS), Jeff Robinson
Description	CSC is the contractor running Virtual Data Center (VDC)
Technical Awareness	CSC will have a high degree of technical skills.
Responsibilities	CSC will host the development and production environment. Maintain technical infrastructure. Rational access to tools.
Success Criteria	Successful delivery of documentation and maintenance of technical infrastructure.
Involvement	Domain experts, data dictionary consulting. Hosts FAFSA on the Web, CPS and Rational artifacts repository. Benchmarking and stress testing.
Deliverables	Information and capacity requirements.
Comments / Issues	Problems that interfere with success and any other relevant information

3.4.14 Students Channel

Representative	Jeanne Van Vlandren, Jeanne Saunders, Nina Colon, Tanya Boyd
Description	The Students Channel is the Site Owner
Technical Awareness	The Students Channel will have a high degree of technical skills.
Responsibilities	The Students Channel will provide project leadership, expertise and knowledge. Final responsibility for success or failure of project.
Success Criteria	Successful redesign of FAFSA on the Web to exceed stakeholder needs.
Involvement	Leadership in business requirements and integration with other systems. Owner of Stakeholder involvement. Acceptance of iterative and final site deliverables.
Deliverables	None
Comments / Issues	None

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3.4.15 Andersen Consulting

Representative	Martin Renwick, Lauren Cato, Grace Yakubisin, Torrey Kirby
Description	Andersen Consulting is the modernization partner for redesign of FAFSA on the Web.
Technical Awareness	Andersen Consulting will have a high degree of technical skills.
Responsibilities	Andersen Consulting is the lead modernization partner.
Success Criteria	Successful launch of redesigned FAFSA on the Web site.
Involvement	Project Management
Deliverables	Project Plan, Business Case, IPT Standards Deliverables
Comments / Issues	None

3.4.16 NCS

Representative	Pat Struve, Mike Cline and Brad Burnett
Description	NCS is the Primary Contractor for existing FAFSA on the Web.
Technical Awareness	NCS will have a high degree of technical skills.
Responsibilities	NCS will administer FAFSA on the Web mainframe database, be responsible for system maintenance, lead focus groups and share knowledge. Beta tests.
Success Criteria	System that is easily administered and maintained.
Involvement	Domain experts of the FAFSA on the Web system. Provide application testing and contributor to functional requirements gathering. Participation in usability testing and focus groups. System integration and testing. Benchmarking.
Deliverables	Source code and system documentation.
Comments / Issues	Problems that interfere with success and any other relevant information

3.4.17 Beacon Technologies

Representative	John Scaramuzzo and Margery Boulette
Description	Beacon Technologies is a sub-contractor of Modernization Program.
Technical Awareness	Beacon Technologies will have a high degree of technical skills.
Responsibilities	Beacon Technologies will provide consulting services to FAFSA on the Web redesign team regarding system usability, design, and network infrastructure and applications architecture. Consultant for focus group development and execution.
Success Criteria	Successful completion and launch of FAFSA on the Web that meet stakeholder needs.
Involvement	Domain expert, lead sections of workshops. Integration and performance testing.
Deliverables	As needed
Comments / Issues	None

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3.4.18 US Interactive (USI)

Representative	Steven Conn, Larry Bach, Steve Reich and Chris Wilson
Description	USI is a modernization partner acting as lead for FAFSA on the Web redesign project.
Technical Awareness	USI will have a high degree of technical skills.
Responsibilities	USI will be project lead in requirements gathering, design specifications and development.
Success Criteria	Successful launch of redesigned FAFSA on the Web site.
Involvement	Gather requirements, co-lead on focus group plan development and execution, specifications development, application development, application testing and project management.
Deliverables	Requirements documents, system specification document, test plans, system documentation, source code and completed application.
Comments / Issues	None

3.5 User Profiles

3.5.1 Format of tables in this section (from the Rational RequisitePro template)

Representative	Who is the user representative to the project (optional - if documented elsewhere). This often refers to the Stakeholder that represents the set of users (i.e. Stakeholder: Stakeholder1).
Description	Brief description of the user type
Technical Awareness	Qualify the expertise of the user i.e. GURU, CASUAL USER etc i.e. Technical background and degree of sophistication
SFA Awareness	Familiarity with the Student Financial Aid process.
Responsibilities	List the key responsibilities of the user with respect to the system (i.e. captures customer details, produces reports, co-ordinates work).
Success Criteria	How does the user define success? How is the user rewarded?
Involvement	How the user is involved in the project - relate where possible to RUP workers (i.e. Requirements Reviewer etc.)
Deliverables	Deliverables the user produces, and for whom.
Comments / Issues	Problems that interfere with success and any other relevant information. Trends that make the user's job easier or harder

3.5.2 Student

Representative	Students Channel
Description	Students applying for financial assistance for post-secondary education.
Technical Awareness	Students will cover the entire range of technical knowledge and ability, from new to expert. Students will cover entire range of financial aid knowledge, from new to experienced.
SFA Awareness	Students will vary from completely familiar to completely unfamiliar.
Responsibilities	Provide accurate personal and financial information to system.
Success Criteria	Successful completion and submission of FAFSA on the Web.
Involvement	Participation in focus groups, interviews, usability testing and beta testing. Provide feedback.
Deliverables	Free Application for Federal Student Aid (FAFSA) to SFA

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Comments / Issues	None
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3.5.3 Parent

Representative	SFA
Description	Parents of students applying for financial assistance for post-secondary education
Technical Awareness	Parents will cover the entire range of technical knowledge and ability, from new to expert.
SFA Awareness	Parents will vary from completely familiar to completely unfamiliar.
Responsibilities	Parents will provide accurate financial information to the system on behalf of the students.
Success Criteria	Student's successful completion and submission of FAFSA on the Web.
Involvement	Participation in focus groups and usability testing.
Deliverables	Free Application for Federal Student Aid (FAFSA) to SFA
Comments / Issues	Parents as students are included in 3.5.2

3.5.4 School

Representative	SFA
Description	Schools are Financial Aid Administrators at post-secondary institutions
Technical Awareness	Schools will cover the entire range of technical knowledge and ability, from new to expert.
SFA Awareness	Schools will vary from moderately familiar to completely familiar.
Responsibilities	Schools will assist students in preparing a FAFSA on the Web. Schools will use FAFSA on the Web data and calculations to develop an individual aid package for each student
Success Criteria	Students meet required deadlines. Students receive appropriate aid packages. Costs associated with administering aid are reduced.
Involvement	Focus group participant and beta testing.
Deliverables	Financial aid package to the student
Comments / Issues	None

3.5.5 Customer Service Representative

Representative	Pat Struve and Students Channel
Description	CSR's are contract and Department of Education employees providing technical and content support to FAFSA on the Web end-users.
Technical Awareness	CSR's are experts.
SFA Awareness	CSR's will have complete familiarity
Responsibilities	Provide technical assistance to end-users experiencing problems with FAFSA on the Web
Success Criteria	Fewer support calls, less transfers, quicker resolutions and overall customer satisfaction.
Involvement	Redesign team member, participate in focus groups and testing.
Deliverables	Statistical reports and call logs, to SFA
Comments / Issues	None

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3.5.6 Students Channel

Representative	Jeanne Van Vlandren, Jeanne Saunders, Nina Colon, Tanya Boyd
Description	The Students Channel are the “owners” of FAFSA on the Web
Technical Awareness	The Students Channel are experts.
SFA Awareness	The Students Channel will be completely familiar.
Responsibilities	The Students Channel will monitor performance and usability of the site, demonstrate and promote the site, increase site utilization and to make corrections to records when necessary.
Success Criteria	Successful user interaction with FAFSA on the Web.
Involvement	Leadership of redesign team member, participate in usability testing, beta testing and focus groups.
Deliverables	Statistical reports and demonstrations.
Comments / Issues	None

3.5.7 Third Party Clients

Representative	Students Channel
Description	Third Party Clients are systems within and outside SFA that need to integrate with FAFSA on the Web.
Technical Awareness	Third Party Clients will have a high degree of software engineering experience, knowledge of software development methodologies and Web technologies.
SFA Awareness	Third Party Clients will be completely familiar to completely unfamiliar.
Responsibilities	Build systems interface between external systems and FAFSA on the Web using provided API.
Success Criteria	Successful integration with FAFSA on the Web to pre-populate certain data elements in the FAFSA on the Web application.
Involvement	Independent integration testing.
Deliverables	Integration with FAFSA on the Web and the PIN site.
Comments / Issues	None

3.6 Key Stakeholder / User Needs

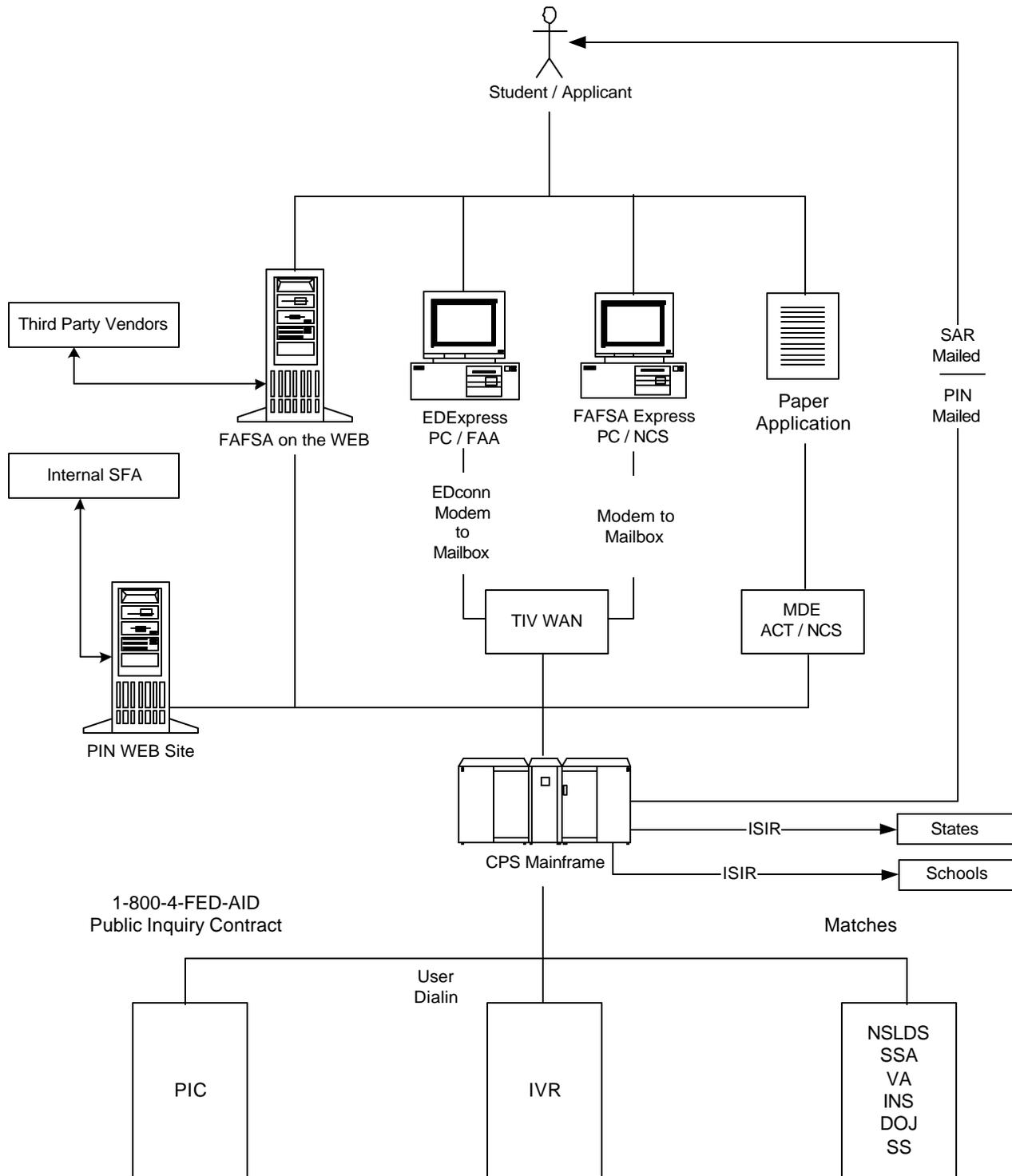
Challenge	Stakeholder	Priority	Current Solution	Proposed Solution
Enhance navigation throughout site	All users	High	[src1]	<ul style="list-style-type: none"> Incorporate a more user friendly, intuitive and efficient site navigation
Clarify application process	All users	High		<ul style="list-style-type: none"> Restructure FAFSA on the web to be more easily understood
Improve look and feel	All users	High		<ul style="list-style-type: none"> Create a site that is easy to use, consistent and eye-catching Separate business and display logic

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Challenge	Stakeholder	Priority	Current Solution	Proposed Solution
Different Federal, State and School systems	All users	Medium		<ul style="list-style-type: none"> ● Create a “one-stop-shop” for Federal, State and School aid programs
Site must accommodate many browser brands/versions, many languages and many modes of access (e.g., screen reader)	All users	High		<ul style="list-style-type: none"> ● Separate business and display logic

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4. System Overview



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5. Assumptions and Dependencies

- 5.1.1 *PIN site data will reside in an Oracle 8I database maintained at the VDC.*
- 5.1.2 *FAFSA on the Web data will reside in an IBM DB2 database on the CPS mainframe maintained at the VDC.*
- 5.1.3 *The FAFSA on the Web application will be hosted at the Virtual Data Center, operated by CSC.*
- 5.1.4 *FAFSA on the Web will use printable, identifiable graphics.*
- 5.1.5 *FAFSA on the Web will comply with accessibility requirements.*
- 5.1.6 *FAFSA on the Web must run two concurrent 20-month cycles.*

6. Product Features

6.1 Students, Parents & Schools

- 6.1.1 *FEAT1 The system shall allow students to display application status.*
 - 6.1.1.1 *FEAT1.1 The system shall allow students to check application status at any time via the FAFSA on the Web website.*
 - 6.1.1.2 *FEAT1.2 The system shall display the status of an application in real time.*
- 6.1.2 *FEAT2 The system shall notify students of changes in application status via email.*
 - 6.1.2.1 *FEAT2.1 The system shall notify students via electronic mail of any change in the status of their application.*
 - 6.1.2.2 *FEAT2.2 The system shall notify students via electronic mail of any corrections or additional information required to complete processing of their application.*
 - 6.1.2.3 *FEAT2.3 The system shall notify the students via electronic mail when their financial aid has been awarded.*
- 6.1.3 *FEAT3 The system shall allow students to fill out an application.*
 - 6.1.3.1 *FEAT3.1 The system shall incorporate all data elements required for the paper FAFSA form, along with the student's email address and early analysis information.*
 - 6.1.3.2 *FEAT3.2 The system shall incorporate language consistent with the paper FAFSA form.*
 - 6.1.3.3 *FEAT3.3 The system shall present input fields in the same order as they appear on the paper FAFSA form, except where following that order would result in unnecessary data entry for the student.*
 - 6.1.3.4 *FEAT3.5 The system shall validate student input at the field level (where possible) and at the form level.*
 - 6.1.3.5 *FEAT3.6 The system shall provide an estimate of the amount of time required to complete the form.*
 - 6.1.3.6 *FEAT3.4 The system shall provide an explanation of which financial aid programs are covered by the FAFSA.*

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6.1.3.7 FEAT3.8 The system shall provide information on what amount of funding is awarded by States.

6.1.3.8 FEAT3.9 The system shall provide information on what amount of funding is awarded by Institutions.

6.1.3.9 FEAT3.7 The system shall provide links to other sources of financial aid information (e.g., state deadlines, non-Federal aid programs, etc.).

6.1.3.10 FEAT3.11 The system shall apply "instant eligibility checks" (e.g., the Drug Conviction Worksheet) independently of having the student complete the entire form.

6.1.3.11 FEAT3.13 The system shall allow the students to navigate freely between sections of the application.

6.1.3.12 FEAT3.14 The system shall allow students to navigate freely between sections of the form that have been completed.

6.1.3.13 FEAT3.10 The system shall inform students of the section they are currently completing, which sections have been completed and which sections require further work.

6.1.3.14 FEAT3.15 The system shall produce a printable preview of the completed application on demand.

6.1.3.15 FEAT3.12 The system shall produce a printed version of required signature pages on demand.

6.1.4 FEAT4 The system shall allow students to submit an application.

6.1.4.1 FEAT4.1 The system shall provide a one-screen summary of the student's application for display prior to submitting the application.

6.1.4.2 FEAT4.2 The system shall apply end-of-entry edits and validations as specified in NCS document 12-910, Common End of Entry Edit Specifications.

6.1.4.3 FEAT4.3 The system shall compute and display an estimated EFC value in accordance with NCS document 12-008, EFC Formula Computations.

6.1.4.4 FEAT4.4 The system shall submit application data to CPS in accordance with NCS document 12-614, Web DB File Layout.

6.1.5 FEAT5 The system shall allow students to file a renewal application.

6.1.5.1 FEAT5.1 The system shall pre-populate the renewal form with data from the previous year (where applicable).

6.1.6 FEAT6 The system shall allow students to correct an application.

6.1.6.1 FEAT6.1 The system shall allow students to navigate directly to fields that require attention.

6.1.6.2 FEAT6.2 The system shall limit the number of correction transactions.

6.1.6.3 FEAT6.3 The system shall provide a one-screen summary of all corrections for display prior to submitting the application.

6.1.6.4 FEAT6.5 The system shall allow students to update submitted corrections which have not been processed.

6.1.6.5 FEAT6.6 The system shall apply end-of-entry edits and validations as specified in NCS

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document 12-910, Common End of Entry Edit Specifications.

- 6.1.6.6 *FEAT6.7 The system shall compute and display a revised estimated EFC value in accordance with NCS document 12-008, EFC Formula Computations.*
- 6.1.6.7 *FEAT6.4 The system shall submit corrected application data to CPS in accordance with NCS document 12-614, Web DB File Layout.*
- 6.1.7 *FEAT7 The system shall authenticate users via the ED PIN server.*
- 6.1.7.1 *FEAT7.1 The system shall not require re-authentication for students who are transferred to FAFSA on the Web from a PIN-enabled site which has already authenticated them.*
- 6.1.8 *FEAT10 The system shall allow students to change, disable and re-enable their PIN.*
- 6.1.8.1 *FEAT10.1 The system shall allow students to register to receive a PIN.*
- 6.1.8.2 *FEAT10.2 The system shall allow students to modify the personal information (e.g., address) stored for them in the PIN database.*
- 6.1.9 *FEAT8 The system shall allow students to electronically sign application.*
- 6.1.9.1 *FEAT8.1 The system shall be designed to accommodate future forms of authentication (e.g., digital certificates).*
- 6.1.9.2 *FEAT8.2 The system shall allow students to electronically sign applications using their PIN, Social Security number, date of birth and the first two letters of the last name.*
- 6.1.10 *FEAT9 The system shall enable students to view the SAR.*
- 6.1.10.1 *FEAT9.1 The system shall allow students to request a duplicate paper copy of their SAR on demand.*
- 6.1.11 *FEAT11 The system shall provide students access to online help.*
- 6.1.11.1 *FEAT11.1 The system shall provide context-sensitive help in a manner which does not disrupt the application flow.*
- 6.1.11.2 *FEAT11.2 The system shall provide comprehensive information about FAFSA, FAFSA on the Web and student aid programs in general.*
- 6.1.12 *FEAT12 The system shall permit students to save interim information securely.*
- 6.1.12.1 *FEAT12.2 The system shall retain saved session data for a period of time to be determined by the Students Channel.*
- 6.1.12.2 *FEAT12.3 The system shall allow students to save all session data on a secure server (i.e., no session data stored on client systems).*
- 6.1.12.3 *FEAT12.4 The system shall permit students to save all session data securely to a local device (i.e., no session data stored by the FAFSA on the Web system).*
- 6.1.12.4 *FEAT12.1 The system shall permit students to save their work at any time.*
- 6.1.12.5 *FEAT12.5 The system shall permit students to restore their saved work at any time.*
- 6.1.13 *FEAT13 The system shall allow students to perform a federal school code search.*

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6.1.14 FEAT14 The system shall enable students to complete the Drug Conviction Worksheet.

6.1.14.1 FEAT14.1 The system shall allow students to determine their eligibility via the Drug Conviction Worksheet prior to completing the rest of the FAFSA form.

6.1.15 FEAT15 The system shall allow parents to enter financial information once, then reuse it for multiple dependents.

6.2 NCS

6.2.1 FEAT17 The system shall provide (to CSRs and ED) authenticated and restricted, within the system, read access to student data.

6.3 Schools

6.3.1 FEAT16 The system shall be integrated with the School and Student Portal.

6.3.2 FEAT19 The system shall permit schools read/write access FAFSA on the Web information.

6.3.2.1 FEAT19.1 The system shall allow schools to view ISIRs for their students.

6.3.2.2 FEAT19.2 The system shall allow schools to recalculate the EFC in order to evaluate alternate aid scenarios for their students.

6.3.2.3 FEAT19.3 The system shall provide schools with information about rejected applications for their students.

6.3.2.4 FEAT19.4 The system shall provide schools with reports currently available through EdExpress.

6.3.2.5 FEAT19.5 The system shall allow schools to compute and display a Pell Grant award for their students.

6.3.2.6 FEAT19.6 The system shall allow schools to access NSLDS data for their students.

6.3.3 FEAT18 The system shall allow schools to batch enter applications.

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7. Other Product Requirements

7.1 Usability

- 7.1.1 *The system shall be accessible at all times.*
- 7.1.2 *FEAT20 The system shall display results in real time from CPS.*
- 7.1.3 *FEAT21 The system shall enable data reuse between applications, wherever practical.*
- 7.1.4 *FEAT22 The system shall incorporate current best practices in web interface design.*
 - 7.1.4.1 *FEAT22.1 The system shall provide a unified look-and-feel throughout the static content and applications included in the site.*
 - 7.1.4.2 *FEAT22.2 The system shall provide seamless navigation between the various parts of the site.*
 - 7.1.4.3 *FEAT22.3 The system shall separate business logic from display logic to facilitate the handling of various web browser versions and other client devices.*
 - 7.1.4.4 *FEAT22.4 The system shall support access via screen reader for visually impaired students.*
 - 7.1.4.5 *FEAT22.5 The system shall be available in Spanish.*

7.2 Reliability

- 7.2.1 *FEAT23 The system shall provide 24*7 accessibility, except for scheduled maintenance.*

7.3 Performance

- 7.3.1 *FEAT24 The system shall perform in accordance with predefined SFA metrics which are yet to be determined.*

7.4 Supportability

- 7.4.1 *FEAT25 The system shall be maintainable by NCS.*
- 7.4.2 *FEAT28 The system shall make use of technologies used at VDC.*
 - 7.4.2.1 *FEAT28.1 The system shall be delivered to VDC with all required support documentation, including a Call-out/Escalation List, Response Matrix, Change/configuration Management Plan and Service Level Agreements.*
- 7.4.3 *FEAT26 The system shall fit in with the SFA Modernization Blueprint.*

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7.5 Security

7.5.1 FEAT30 The system shall provide data protection as required by the Privacy Act and other applicable security regulations and policies.

7.5.1.1 FEAT30.1 The system shall inform students about site security and use of student data.

7.5.2 FEAT27 The system shall incorporate current Best Practices in Internet and Web security.

7.5.2.1 FEAT27.1 The system shall accommodate all encryption levels in common use.

7.5.2.2 FEAT27.2 The system shall recommend that students upgrade their browsers to the highest encryption levels and provide links to sites where the upgrades can be obtained.

7.5.3 FEAT29 The system shall meet or exceed SFA security requirements for web applications.

7.5.3.1 FEAT29.1 The system shall use separate server instances for secure and non-secure documents.

7.6 Applicable Standards

To Be Determined Later

8. Documentation Requirements

8.1.1 FEAT31 The system shall permit the Students Channel to do reporting and analysis.

8.1.2 FEAT32 The system shall provide a multimedia tutorial.

9. Risk and Mitigation Strategies

Risk	Mitigation Strategy	Resolution
New team members	- Good communication	-
Duplicate effort to re-develop work that has already been done by others	- Define boundaries - Reuse of work - Understanding Roles - Communications among team members	-
System boundaries		
Team synergy – combination of a large group of bounded teams		
High end-user expectations (e.g. usability, save/restore functionality, ...)	- Define scope - Prototyping - Focus group to get user's needs and expectations - Usability testing - Release Plan	-
Balancing user needs and their capabilities (e.g. tech savvy vs. non-savvy)	- Focus group to get user group's needs - Prioritizing	-
VDC's ability to support team	- Make sure CIO understands our concerns - Continuous architecture review with VDC - CIO Standards - Architecture Review	-

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No true test environment (performance/stress testing)		
Not sure VDC can handle utilization		
Utilization higher than expected (don't have a reliable mechanism to predict utilization)	<ul style="list-style-type: none"> - Improve forecasting - Make system scalable without software modifications - Set up a good testing environment - IT monitors across applications - Provide history of utilization for VDC. 	-
Changing requirements from congress and other regulatory bodies	<ul style="list-style-type: none"> - Flexible application architecture - Accept requirement changes during development and even after production 	-
Delivery Risk	<ul style="list-style-type: none"> - Well defined scope - Escalation strategy - Project Plan - Effective management - Check points 	-
Platform may not support future requirements	<ul style="list-style-type: none"> - Extensible design - Change management 	-
Dependent on external sources (external system's performance will impact FAFSA)	<ul style="list-style-type: none"> - Design must ensure that dependencies will not impact FAFSA's users - Design contingency procedures - Integration testing 	-
Student Portal and other stakeholders impose changes late in development phase	<ul style="list-style-type: none"> - Flexible application architecture - Change management - Communication with Portal Team - Release Schedule 	-
Synchronization between development teams	<ul style="list-style-type: none"> - Communications - Understand roles - Define boundaries - Code inspections, peer walk-through - Regular status meetings 	-
New system missing features of current system	<ul style="list-style-type: none"> - Thorough requirements gathering - Thorough features list which includes existing or desired features from current system - Regression testing 	-
Cross version compatibility	<ul style="list-style-type: none"> - Integration Testing 	-

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	<ul style="list-style-type: none"> - Beta testing - Usability Testing - Acceptance Testing 	
Data migration	<ul style="list-style-type: none"> - System boundary - Integration testing - Regression testing - Plan and communicate change early 	-
Cut-over might occur during peak time	<ul style="list-style-type: none"> - Create schedule preview 	-
Contract issues & Budget Phase, Release 5 - Phase 1	<ul style="list-style-type: none"> - Schedule and budget done by 8/15/00 	- Resolved
Contract issues & Budget Phase, Release 5 - Phase 2	<ul style="list-style-type: none"> - Schedule and budget done by ? 	
Synchronizing student, FAFSA IPTs	<ul style="list-style-type: none"> - Proactively make sure information flows among all parties - Integrate IPT staffing 	-
Students may not accept/like changes	<ul style="list-style-type: none"> - Feedback - Proactively communication - Make sure focus group has the wide representation of students - Usability testing - Focus groups 	-
Different methodologies and standards have not been integrated for use	<ul style="list-style-type: none"> - Detailed project plan - Identify and plan methodologies and standards ahead - Identify the best practice and apply - Identify standards 	-
Security	<ul style="list-style-type: none"> - Security plan - Security testing 	-