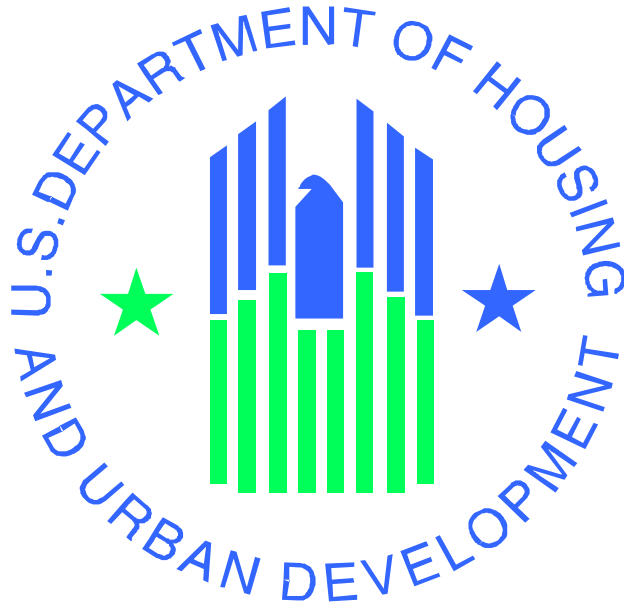*US Department of Housing and Urban Development*
Public and Indian Housing – Real Estate Assessment Center
(PIH-REAC)
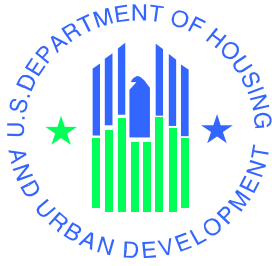

SYSTEM/SUBSYSTEM SPECIFICATIONS

For The

Financial Assessment Subsystem – Public Housing
(FASS PH)

System:	REACS
Subsystem:	FASS-PH
Release:	8.1.0.0
Database Release:	REACS
Doc Type:	System/Subsystem Specifications
Doc Date:	6/30/2005
Doc Author:	Avineon
Doc Number:	1.5
Doc Status:	Final

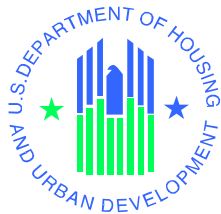# SYSTEM/SUBSYSTEM

SPECIFICATIONS

Financial Assessment Subsystem – Public Housing
(FASS-PH)
Release 8.1.0.0

U.S. Department of Housing and Urban Development
Real Estate Assessment Center (REAC)

August 26, 2005

Revision Sheet

Revision No.	Date	Revision Description
Rev. 1.1	06/10/05	Initial version.
Rev. 1.2	06/14/05	Incorporated Peer Review comments.
Rev. 1.3	06/21/05	Incorporated Quality Assurance Review Comments.
Rev. 1.4	06/23/05	Updated to include Inputs/Outputs.
Rev. 1.5	06/30/05	Incorporated IT Manager's Comments.

System/Subsystem Specifications Authorization Memorandum

I have carefully assessed the System/Subsystem Specifications for the Financial Assessment Subsystem – Public Housing (FASS-PH) Release 8.1.0.0. This document has been completed in accordance with the requirements of the HUD System Development Methodology.

MANAGEMENT CERTIFICATION - Please check the appropriate statement.

_____ The document is accepted.

_____ The document is accepted pending the changes noted.

_____ The document is not accepted.

We fully accept the changes as needed improvements and authorize initiation of work to proceed. Based on our authority and judgment, the continued operation of this system is authorized.

_____   _____
Freddie Harrison   DATE
FASS-PH IT Manager

_____   _____
Nicholas Miele   DATE
FASS-PH Business Program Manager

Public and Indian Housing -Real Estate Assessment Center (PIH-REAC)
Financial Assessment Subsystem – Public Housing (FASS-PH)
Release 8.1.0.0

System/Subsystem Specifications

SYSTEM/ SUBSYSTEM SPECIFICATIONS

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Public and Indian Housing -Real Estate Assessment Center (PIH-REAC)
Financial Assessment Subsystem – Public Housing (FASS-PH)
Release 8.1.0.0

System/Subsystem Specifications

1.0 GENERAL INFORMATION

Public and Indian Housing -Real Estate Assessment Center (PIH-REAC)
Financial Assessment Subsystem – Public Housing (FASS-PH)
Release 8.1.0.0

1.0 General Information

1.0 General Information

1.1 Purpose

The Department of Housing and Urban Development (HUD) has established the HUD Annual Performance Plan (APP) to demonstrate how HUD is measuring progress toward achieving its critical mission: to promote adequate and affordable housing, economic opportunity, and a suitable living environment free from discrimination. Financial Assessment Subsystem – Public Housing (FASS-PH) aids HUD in meeting the following departmental goals and objectives: restoring the public trust, increasing affordable housing and reducing homelessness.

FASS-PH also aids HUD in addressing existing material weaknesses and business operating goals. Specifically, the FASS-PH functions address the following HUD material weaknesses identified by IG audit: Payment of Incorrect Subsidy Amount and HUD Resource Management. FASS-PH supports business operating plan goal 6.1.4 related to decreasing the share of public housing units managed by troubled housing authorities.

The FASS-PH Release 8.1.0.0 SDM System/Subsystem Specifications Document is the first document in a series of two Housing and Urban Development System Development Methodology (SDM) Design Phase deliverable documents required from the FASS System Development Team. This series of SDM Design Phase deliverables includes the System/Subsystem Specifications and the Program Specifications. This document outlines the FASS-PH Release 8.1.0.0 System Specifications.

1.2 Scope

FASS-PH Release 8.1.0.0 will expand FASS-PH capabilities as of Release 8.0.0.0 and is scheduled to be implemented on August 26, 2005. The following table describes the functionality to be implemented as part of FASS-PH Release 8.1.0.0.

Below is a list of the FASS-PH Release 8.1.0.0 requirements:

Requirement Table			
#	Req. #	Title	Description
1	2	Line Item G3000-010	DCF/Financial Statement/G3000-010 Type of Audit Report/G3000-060 & 070 will now reflect Fund Type and Opinion of the Fund rather than Program. Auditors should only be entering opinion for funds within the PHA.
2	3	View Prior Fiscal Year Submission Comments	Allow analysts to review prior year submission comments while still reviewing the current FYE submission. This will allow the analyst to review prior submission comments without navigating between multiple submissions.
3	4	Line Item G4200-010 & G4200-050	Modify Line Item 4200-050 to default to "N/A"; if and only if Line Item 4200-010 is selected "No" for Non-Major Programs audited A133, there will be no penalty when this opinion is selected.

1.0 General Information

#	Req. #	Title	Description
4	5	Line Item G1102	New logic will be in place, so that the external user will not be able to enter any amount on Line Item G1102. This new methodology should begin for all 9/30/2005 submissions.
5	6.2	FASS Analyst Column	Modify the FASS Analyst column for the external user inbox only to display the name of the Business Manager or Analyst.
6	6.7	FDS Report Print Functionality	Repair the FDS report page to print correctly from MS Internet Explorer.
7	7.1	Storing Assessment Attachments	Change the storage of permanent file attachments from being part of the UNIX /Windows file system to being stored as Binary Large Objects (BLOBs) in the database. All file attachments need to be stored and retrieved on the REACS database.
8	7.2	HTTPS on port 443 (default)	Remove any instances of http port in Cold Fusion templates and replace http port with the relative server.
9	7.7	WASS – Guest Checkbox	WASS will remove the guest checkbox on the Login interface. Have the system automatically recognized a guest user.
10	7.9	Remove Identity Type from the Participant Assessment Table.	Remove identity attribute from the column definition in the assessment table and replace the attribute with a stored procedure to find the sequential primary key value.
11	7.10	LOCCS/HUDCAPS Storing Data.	Remove storing Line of Credit Control System/ HUD Central Accounting Processing System (LOCCS/HUDCAPS) data in permanent tables and pipe the HOCCS/HUDCAPS data directly into the REAC database.
12	8	Modify the Review Submission Page description text.	Modify the instructions on the Review Submission Page under the Financial Statement tab.

Requirement Table

Public and Indian Housing -Real Estate Assessment Center (PIH-REAC)
Financial Assessment Subsystem – Public Housing (FASS-PH)
Release 8.1.0.0

1.0 General Information

1.3 System Overview

The FASS-PH is a subsystem of the Real Estate Assessment Center System (REACS). FASS-PH will help enable centralized financial analysis that can be used to identify where HUD should focus its limited resources to improve service delivery and manage its housing programs proactively. To achieve this goal, the following objectives have been identified:

- Gather standard financial data pertaining to each Public Housing Agency (PHA) and Section 8 Entity by combining standard fiscal audit information with reporting and compliance factors as defined by the Single Audit Act;
- Assess the financial condition of all PHAs and Section 8 Entities using a comprehensive protocol;
- Assess financial risk using standard financial data;
- Determine an objective, numerical score for each PHA and Section 8 Entity using standard protocols for financial performance review;
- Enable HUD staff to focus on the most troubled PHAs and Section 8 Entities based on the risk associated with the score;
- Eliminate or address existing material weaknesses identified through IG Audits. This includes mitigating potential risks;
- Support HUD's mission;
- Implement OMB Circular A-123 compliant policies and procedures;
- Support HUD's eGov Strategic Plan;
- Automate paper based forms to support the Government Paperwork Elimination Act (GPEA);
- Provide payback as early in the system lifecycle as possible;
- Provide significant benefits to HUD;
- All new functionality meets the Rehabilitation Act Section 508 requirements.

1.0 General Information

The following table identifies the general environment for the development of FASS-PH:

System Environment Table	
Environment	**System / Organization**
System	Real Estate Assessment Center System (REACS)
Subsystem	Financial Assessment Subsystem - Public Housing (FASS-PH)
Responsible Party Description	
Sponsor	Public and Indian Housing – Real Estate Assessment Center (PIH-REAC)
Requirements	Avineon Inc.
Design	Avineon Inc.
Development	Avineon Inc.
System and Integration Testing	Avineon Inc., DCG
User Acceptance Testing	To be determined by PIH-REAC Management
Deployment	Avineon Inc., DCG
Maintenance	Avineon Inc., DCG
System Environment, Code, and Category: and Operational Status Description	
PCAS	307820
System Code	P093
System Category	Non-Major
Operational Status	Operational
System Environment	Web Based

The following table identifies and briefly describes the different users of FASS-PH.

User Environment	
Public Housing Agency (PHA)	PHAs and Section 8 Entities use FASS-PH to annually submit unaudited and audited financial data to the REAC for analysis. A PHA may also use the system to request submission extensions and to review the status of its financial submission(s).
Agents	A PHA may delegate the task of submitting financial information to its agent(s). Regardless of who submits its financial information, the PHA is ultimately responsible for the timeliness and accuracy of the submission.
Independent Public Accountant (IPA)	An IPA is responsible for reviewing and verifying audited submission data prior to a PHA's submission to the REAC. Again, the PHA is ultimately responsible for the timeliness and accuracy of the submission.
REAC PHA Financial Assessment Team	The REAC PHA Financial Assessment Team will use FASS-PH to perform its critical business processes, including the assessment of the financial condition of PHAs.
Other HUD Users	All other HUD users will have read-only access to FASS-PH in order to review PHA financial data. This includes field office and other HUD headquarters users.

Public and Indian Housing -Real Estate Assessment Center (PIH-REAC)
Financial Assessment Subsystem – Public Housing (FASS-PH)
Release 8.1.0.0

1.0 General Information

1.4 Project References

The following documents are available to provide a comprehensive understanding of the PHA financial assessment process. Most documents are available via the REAC Document Library. Additionally, several of the documents listed below are available through the PHA Financial Assessment Internet site at *http://www.hud.gov/offices/reac/products/prodpha.cfm.*

References
FASS-PH 8.1.0.0
"FASS-PH Release 8.1.0.0 SDM Define Phase – Functional Requirements Document," 06/07/2005.
"FASS-PH Release 8.1.0.0 SDM Define Phase – Data Requirements Document," 06/09/2005.
"FASS-PH Release 8.1.0.0 SDM Initiate Phase – Feasibility Study," 06/10/2005.
"FASS-PH Release 8.1.0.0 SDM Initiate Phase – Cost/Benefit Analysis," 06/10/2005.
"FASS-PH Release 8.1.0.0 SDM Initiate Phase – Risk Analysis," 06/09/2005.
"FASS-PH Release 8.1.0.0 SDM Initiate Phase – Risk Management Plan," 05/31/2005.
"FASS-PH Release 8.1.0.0 SDM Initiate Phase – Project Management Plan," 05/31/2005.
"FASS-PH Release 8.1.0.0 SDM Initiate Phase – Quality Assurance Plan," 05/31/2005.
FASS-PH 8.0.0.0
"FASS-PH Release 8.0.0.0 SDM Functional Requirements Document," 11/13/2003.
"FASS-PH Release 8.0.0.0 SDM Data Requirements Document," 11/13/2003.
FASS-PH 7.4.0.0
"FASS-PH Release 7.4.0.0 SDM Integration Test Results and Evaluation Report," 10/31/2003.
"FASS-PH Release 7.4.0.0 SDM System Test Results and Evaluation Report," 10/10/2003
"FASS-PH Release 7.4.0.0 SDM Validation, Verification and Testing Plan," 09/04/2003.
"FASS-PH Release 7.4 0.0 SDM Program Specifications," 08/21/2003.
"FASS-PH Release 7.4.0.0 SDM System/ Subsystem Specifications,"08/21/2003.
"FASS-PH Release 7.4.0.0 SDM Functional Requirements Document," 08/05/2003.
"FASS-PH Release 7.4.0.0 SDM Data Requirements Document," 08/05/2003.
FASS-PH 7.3.0.0
"FASS-PH Release 7.3.0.0 SDM Integration Test Results and Evaluation Report," 08/05/2003.
"FASS-PH Release 7.3.0.0 SDM System Test Results and Evaluation Report," 07/11/2003.
"FASS-PH Release 7.3.0.0 SDM Unit Test Plan," 05/27/2003.
"FASS-PH Release 7.3.0.0 SDM Validation, Verification and Testing Plan," 5/12/2003.
"FASS-PH Release 7.3.0.0 SDM Training Plan," 04/17/2003.
"FASS-PH Release 7.3 0.0 SDM Program Specifications," 05/07/2003.
"FASS-PH Release 7.3.0.0 SDM Database Specifications," 05/07/2003.
"FASS-PH Release 7.3.0.0 SDM System/ Subsystem Specifications," 05/07/2003.
"FASS-PH Release 7.3.0.0 SDM Functional Requirements Document," 04/02/2003.
"FASS-PH Release 7.3.0.0 SDM Data Requirements Document," 04/02/2003.
"FASS-PH Release 7.3.0.0 SDM System Security and Privacy Plan," 04/02/2003.
"FASS-PH Release 7.3.0.0 SDM System Support and Acquisition Document," 04/02/2003.
"FASS-PH Release 7.3.0.0 SDM Initiate Phase – Feasibility Study," 03/25/2003.
"FASS-PH Release 7.3.0.0 SDM Initiate Phase – Cost/Benefit Analysis," 03/25/2003.
"FASS-PH Release 7.3.0.0 SDM Initiate Phase – Needs Statement," 03/25/2003.

1.0 General Information

References
"FASS-PH Release 7.3.0.0 SDM Initiate Phase – Risk Analysis," 03/25/2003.
"FASS-PH Release 7.3.0.0 SDM Initiate Phase – Project Plan," 03/25/2003.
"FASS-PH Release 7.3.0.0 Work Plan," 03/20/2003.
"FASS-PH Quality Control Plan," 11/04/2002.
Refer to "FASS-PH Release 7.3.0.0 SDM Functional Requirements Document," 04/02/2003 for list of References prior to FASS-PH Release 7.3.0.0.
Policies
"PHAS: Physical Condition Scoring Process and Financial Condition Scoring Process," 10/21/2003.
"Changes to the Public Housing Assessment System (PHAS); Proposed Rule," 24 CFR Part 902, 02/06/2003.
"PHAS; Notice Adopting Interim Scoring Methodologies for PHAS Physical Condition and Financial Conditions Indicators," 03/15/2002.
"PHAS Information About PHAS Interim Scoring Methodology for PHAs With Fiscal Years Ending On or After September 30, 2001: Introduction; Notice," 11/26/2001.
"PHAS; Financial Condition Scoring Process Interim Assessments," 11/26/2001.
"PHAS; Revised Timetable for Issuance of Management Operations Official Scores and PHAS Advisory Scores; and Notice of Intent to Commence Informal Meetings on PHAS," 05/30/2001.
"PHAS; Financial Condition Scoring Process Notice," 12/21/2000.
"PHAS: Notice of Extended Submission Period for PHAS Management Operations Certification and Audited Financial Statement for Certain PHAs;" 11/21/2000.
"PHAS Management Operations Certification Resubmissions Period and Financial statement Submission Extension Period for Certain PHAs," 08/09/2000.
"PHAS Financial Condition Scoring Process," 06/28/2000.
"Uniform Financial Reporting Standards: 24 CFR Part 5, et al," 03/27/2000.
"Technical Correction to PHAS Final Rule," 06/06/2000.
"Public Housing Assessment System (PHAS) Amendments; Final Rule," 24 CFR Part 902, 01/11/2000.
"Notice Clarifying Manual Submissions and Extension Requests Under the Public Housing Assessment System (PHAS)," 11/17/1999.
"PHAS Proposed Amendments to 24 CFR Part 902," 06/22/1999.
"Public Housing Assessment System; Financial Condition Scoring Process Notice," 06/23/1999.
"Uniform Financial Reporting Standards for HUD Housing Programs; Final Rule," 24 CFR Part 5, et. al., 09/1/1998.
"Public Housing Assessment System Final Rule," 24 CFR Parts 901 and 902, 09/1/1998.
"HUD Handbook 2400.15," 02/18/1992.
"HUD Handbook 2229.1," 06/28/1989.
"HUD Handbook 2400.24 – Rev 2," 11/10/1999.
Additional References
OMB: "Information Collection; Request for Public Comments." 08/15/2003
"Federal Audit Clearinghouse (FAC) Summary of Proposed Changes to the Data Collection Form (SF-SAC)," 08/15/2003.
"Draft Data Collection Form (SF-SAC) for Fiscal Year Ending Dates in 2004, 2005, or 2006," 08/15/2003.
"Instructions for Completing Form SF-SAC, … for Fiscal Periods Ending in 2004, 2005, or 2006," 08/15/2003.
"Summary of Changes to SF-SAC," 11/16/2000.

1.0 General Information

References
"I-TIPS FY2001 – Project Plan," 06/16/2000.
"I-TIPS FY2001 – Feasibility Study," 06/16/2000.
"I-TIPS FY2001 – Cost/Benefit Analysis," 06/16/2000.
"I-TIPS FY2001 – Needs Statement," 06/16/2000.
"I-TIPS FY2001 – Risk Assessment," 06/16/2000.
"Financial Data Schedule Line Definitions and Crosswalk Guide," 09/14/2001.
"HUD PHA GAAP Conversion Guide," 01/31/2000.
"Detailed System Requirements Document for the AFS Version 2.0."
"Annual Financial Data Submission Requirements for the AFS Version 2.0."
"Addendum to the Data Standardization Results for the AFS Version 2.0."
"System Development Methodology Release 6.01," January 2000.
"Preliminary Scoring Methodology and Thresholds for Financial Indicators," 06/30/1999.
"Financial Indicators Methodology & Analysis Guide," 12/14/1999.
"PHA Financial Assessment Lab Financial Assessment Operations Design and Procedures," 03/31/1999.
"Financial Assessment Lab – Business Process Documentation and Flow Maps," 09/21/1999.
"PHAS Appeals Business Process," 11/28/2000.
"HUD Business Resumption Plan," 10/2000.

1.5 Acronyms and Abbreviations

The following terms are used throughout the Design Phase deliverables.

Term	DEFINITION
ACWP	Actual Cost of Work Performed
BCWS	Budgeted Cost of Work Scheduled
BCWP	Budgeted Cost of Work Performed
BRD	Business Requirements Document
BLOBS	Binary Large Objects
CCB	Change Control Board
CDR	Critical Design Review
CFDA	Catalog of Federal Domestic Assistance
CI	Configuration Item
CIO	Chief Information Officer
CLIN	Contract Line Item Number
CM	Configuration Management
CMP	Configuration Management Plan
CMM	Capability Maturity Model
CMMI	Capability Maturity Model Integrated

1.0 General Information

Term	DEFINITION
CO	Contracting Office
COOP	Continuity of Operations Plan
COR	Contracting Office Representative
COTS	Commercial Off The Shelf
CPI	Cost Performance Index
CR	Change Request
CSCI	Computer Software Configuration Item
CV	Cost Variance
DB	Database
DCF	Data Collection Form
DCG	Development Coordination Group
DMM	Deliverable Management Module
DOA	Date of Award
DR	Design Review
EAC	Estimate At Completion
EIN	Employer Identification Number
ETC	Estimate To Complete
EV	Earned Value
EVA	Earned Value Analysis
EVM	Earned Value Management
FASS-PH	Financial Assessment Subsystem Public Housing
FCA	Functional Configuration Audit
FDS	Functional Design Specification
FEDSIM	Federal Systems Integration and Management Center
FRD	Functional Requirements Document
FOIA	Freedom Of Information Act
FQR	Formal Qualification Review
FYE	Fiscal Year End
GAAP	Generally Accepted Accounting Principles
GAGAS	Generally Accepted Government Auditing Standards
GAO	Government Accounting Office
GASB	Governmental Accounting Standards Board
GSA	General Services Administration

1.0 General Information

Term	DEFINITION
GTM	Government Technical Monitor
HTML	Hypertext Markup Language
HUDCAPS	HUD Central Accounting Processing System
HUD OIG	HUD Office of Inspector General
HUDWeb	HUD's Intranet Web Site
ICD	Interface Control Deliverable
IG	Inspector General
IPA	Independent Public Accountant
IPR	In Progress Reviews
ISG	Internet Services Group
IT	Information Technology
IV&V	Independent Verification & Validation
JAD	Joint Application Development
LOCCS	Line of Credit Control System
LPF	Late Presumptive Failure
MF	Multi-Family
NASS	Integrated Assessment Subsystem
NDS	Non-Developmental Software
ODC	Other Direct Costs
OMB	Office of Management and Budget
PASS	Physical Assessment Subsystem
PCA	Physical Configuration Audit
PDR	Preliminary Design Review
PH	Public Housing
PHA	Public Housing Agency/Public Housing Authority
PHAS	Public Housing Assessment System
PIH	Public and Indian Housing
PM	Project Manager
PMC	Project Monitoring and Control
PMP	Project Management Plan
PNR	Problem Notification Report
PP	Project Plan
PP&O	Project Planning & Oversight

1.0 General Information

Term	DEFINITION
PPQA	Product &Process Quality Assurance
PR	Problem Reports
PRR	Product Readiness Review
QA	Quality Assurance
QAG	Quality Assurance Guidelines
QAP	Q uality Assurance Plan
QASS	Quality Assessment Subsystem
RAF	Risk Analysis Form
RASS	Residential Assessment Subsystem
REAC	Real Estate Assessment Center
REACS	Real Estate Assessment Center System
RM	Risk Management
RR	Requirements Review
SAC	PHAS invalidation action code
SCI	Software Configuration Item
SCR	Software Change Request
SDD	Software Design Description
SDF	Software Development File
SDL	Software Development Library
SDM	Software Development Methodology
SDP	System Decision Paper
SDR	Software Design Review
SMP	Software Measurement Plan
SOW	Statement Of Work
SPI	Schedule Performance Index
SQA	Software Quality Assurance
SR	Specification Review
SRS	Software Requirements Specification
SSDD	System/Subsystem Specification
SSR	Software Specification Review
SSS	System/Subsystem Specification
SV	Schedule Variance
SW	Software

1.0 General Information

Term	DEFINITION
TAC	Technical Assistance Center (formerly the Customer Service Center)
TBD	To Be Defined
TOR	Task Order Request
TOS	Tracking & Ordering System
TRB	Technical Review Board
TRR	Test Readiness Review
UAT	User Acceptance Testing
UDF	Unit Development Folder
UFI	Unique Fee Accountant Identifier
UII	Unique IPA Identifier
WASS	Web Access Security System
WBS	Work Breakdown Structure
WDDX	Web Dynamic Exchange
XML	eXtensible Mark-up Language

1.6 Points of Contact

1.6.1 Information

Points of Organizational Contacts Table				
Contact Name	**Organization**	**Position**	**Telephone Number**	**Email**
Nick Miele	PIH-REAC	FASS-PH Business Program Manager	202-475-8788	Nicholas_X._Miele@hud.gov
Steve Bolden	PIH-REAC	FASS-PH Assessment Manager for Systems Operations	202-475-8706	Steve_A._Bolden@hud.gov
Freddie Harrison	PIH-REAC	FASS-PH IT Manager	202-475-8639	Frieddie_Harrison@hud.gov
Keith Bennett	Avineon Inc.	Project Manager	202-475-8903	Keith_Bennett@HUD.gov
Joneff Chung	Avineon Inc.	FASS-PH Requirements Lead	202-475-8889	Joneff_Chung@HUD.gov
Surafiel Berek	Avineon Inc.	FASS-PH Development Lead	202-475-8828	Surafiel_Berek@HUD.gov
Mohammed Hasan (Ashraf)	Avineon Inc.	FASS-PH Maintenance Lead	202-475-8898	Mohammed_A._Hasan@HUD.gov
Cheryl A. Smith	Avineon Inc.	FASS-PH Test Lead	202-475-8897	Cheryl_A_Smith@HUD.gov

1.0 General Information

Points of Organizational Contacts Table				
Contact Name	**Organization**	**Position**	**Telephone Number**	**Email**
Virginia Davis	Avineon Inc.	FASS-PH Quality Assurance Manager	202-475-8888	Virginia_N._Davis@HUD.gov

1.6.2 Coordination

FASS-PH will coordinate with the following organizations to successfully implement the FASS-PH Release 8.1.0.0

Organization	Support Function
PIH-REAC	Business Requirements Support, Project Management
Avineon	Requirements, Design, Development, Testing, Installation, Deployment, Maintenance, Technical Support /Operations, Project Management
DCG	Customer Support/Operations, Development Coordination, Integration Test Coordination, Deployment, and Maintenance
HUD IT	Implementation Coordination
FASS-PH Lab	Business Requirements Support, Version 4 Scoring Thresholds
WASS	Security
NASS	Integration
QASS	Integration

Listed below are the coordination dates that each Real Estate Assessment Center System (REACS) must achieve in order to adhere to the August 26, 2005 release date.

Integration Test Start Date	Code Locked Date	Integration Test End Date	Final HARTS Request Submission Date	Release Date
07/13/2005	08/01/2005	08/08/2005	08/01/2005	08/26/2005

2.0   SYSTEM CHARACTERISTICS

Public and Indian Housing -Real Estate Assessment Center (PIH-REAC)
Financial Assessment Subsystem – Public Housing (FASS-PH)
Release 8.1.0.0

2.0 System Characteristics

2.0 SYSTEM CHARACTERISTICS

2.1 System/Subsystem Description

The FASS-PH system provides a common means of collecting the financial assessments of PHAs and comparing their performance to one another and to pre-determined performance criteria. This capability allows HUD to establish a baseline of measurement for PHAs, and to monitor their performance. If a PHA is determined to be a "poor perform", steps are taken to correct the problem.

2.2 System/Subsystem Partitions and Functions

Currently, FASS-PH uses a web-based application platform. This platform allows users to store data in a secured central database and access pertinent information. Users can enter financial data into the system for submission to the REAC. REAC Analysts, Assessment Managers, and Financial Directors are able to approve or reject submissions.

The FASS-PH subsystem interfaces with other REAC subsystems. The Integrated Assessment Subsystem (NASS) allows for the creation, review and approval or rejection of extension requests and manual submission requests. Additionally, NASS generates a PHAS score for each completed PHA submission and allows users to view the scoring details from the FASS-PH score. NASS also provides invalidation functionality of approved submissions to allow a PHA to resubmit their financial information, provides necessary data to generate the High Reserve and Liquidity Adjustment Report, handles correspondence to external users, and makes necessary score adjustments.

FASS-PH also interfaces with the Quality Assurance Subsystem (QASS), which allows REAC personnel to submit FASS-QA referrals. The QASS subsystem maintains Unique IPA Identifiers (UIIs), which are assigned to PHA auditors. PHAs, auditors, and internal REAC personnel are required to enter valid UIIs on the FASS-PH DCF, FASS-QA referral pages, and FASS-PH auditor procedure pages to complete audited submissions, conduct IPA review, and create FASS-QA referrals for IPAs. Since the April 2004 Release, QASS has provided the capability to register a Unique Fee Accountant Identifier (UFI). PHAs will be required to enter a valid UFI on the FASS-PH Data Collection Form if applicable. The UFI entered will be validated against QASS database tables.

Please refer to the Functional Requirements Document, Section 5.2, for a matrix tracing system functions to functional requirements and business rules. Please refer specifically to those items pertaining to Release 8.1.0.0. Traceability to design specifications can be found in the Program Specifications document.

Public and Indian Housing -Real Estate Assessment Center (PIH-REAC)
Financial Assessment Subsystem – Public Housing (FASS-PH)
Release 8.1.0.0

2.0 System Characteristics

2.3 Accuracy and Validity

PREQ #	PERFORMANCE MEASURE	SOURCE
1.0	**Accuracy**	
P1	FASS-PH must be maintained with automatic edits/validation of external data.	User Requirement

2.4 Timing and Capacity

PREQ #	PERFORMANCE MEASURE	SOURCE
2.0	**Timing**	
P2	FASS-PH will score submitted PHA submissions every evening.	User Requirement
P3	FASS-PH will be available for PHA submission entry 24 hours per day, except for downtime during scheduled system maintenance and upgrades.	User Requirement
P4	FASS-PH will provide capability to generate multiple reports 24 hours per day, except during scheduled system maintenance and upgrades.	User Requirement
P5	FASS-PH will provide capability to load every page in 8 second or less (except for the waived pages).	User Requirement
P6	FASS-PH will provide capability to execute every stored procedure in 3 second or less (except for the waived stored procedures).	User Requirement
3.0	**Flexibility**	
P7	Design system to allow for any number of submissions within a 24-hour period, except for downtime during scheduled system maintenance and upgrades.	User Requirement
P8	Design system to store data properly within the target database.	User Requirement
P9	The database must be able to store a minimum of 6,000 submissions annually.	User Requirement
P10	The system will have the capability to handle at least 600 concurrent transactions (100 concurrent transactions * 6 servers).	User Requirement
P11	The system will have the capability to handle at least 600 concurrent users.	User Requirement

2.5 Adaptability

The FASS-PH Release 8.1.0.0 maintenance, enhancements, and infrastructure changes will allow the system to be more flexible for both internal and external users. The following administrative, business and technical needs will be met through this release:

- Satisfy some of Inspector General's findings.

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- Enhance user functionality through redesigned screen processes and increased external user flexibility.

- Implement corrections to existing codes and functionality to improve the business user interface with the online system and increase productivity.

First, the DCF/Financial Statement/G3000-010 Type of Audit Report/G3000-060 & 070 will now reflectFund Type and Opinion of the Fund rather than Program. Auditors should only be entering opinion for funds within the PHA.

Analysts will now be able to review prior years comments while still viewing the current FYE submission. This enhancement will allow the analyst to review prior submission comments without navigating between multiple submissions.

Line Item 4200-050 will now default to "N/A" for Non-major programs audited A133. When this opinion is selected, there will be no penalty.

For Fiscal Year 09/30/2005 and beyond, entries will not be allowed for Line Item 1102. When data is entered for this line item, a pop-up message will appear.

This maintenance requirement will provide the functionality to display only a manager or financial analyst name in the FASS Analyst column that last viewed the submission. Following this logic, the director's name should never be display in this column.

The FDS report page will be modified to allow printing correctly from Microsoft Internet Explorer.

The Review Submission Page description under the Financial Statement tab will be modified to read, "Government-Wide and or Fund Financial Statement."

The following infrastructure changes need to be implemented along with Release 8.1.0.1 as mandated by the Development Coordination Group (DCG) in order for the system to function:

All file attachments in FASS-PH assessments must now be stored as Binary Large Objects (BLOBs) in the database. This functionality will replace the current method of storing files in directories within the FASS-PH.

The application will now use relative server name. All hard coded port number from all stored procedures will be removed.

Check box for guest users will be removed. This functionality will replace the current process of logging guest users into the FASS-PH. Currently a guest user manually checks the Guest User checkbox on the login interface. WASS will remove the CHECK BOX from the logon screen. When a user logs onto WASS and select FASS-PH, WASS will send a guest role code for every user. FASS-PH will check its role table for that user; if the user has another role code then he will be assigned his FASS-PH role code. If the user does not have a FASS-PH role code then his role code will default to GUEST.

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Identity type will be removed from participant assessment. The PARTICIPANT_ASSESSMENT table contains a column called ASSESSMENT_ID that has a column_definition of IDENTITY. This allows the ASSESSMENT_ID to automatically increment its value by one whenever a new row is added to the table. DCG has removed the IDENTITY column_definition so the system has to be changed to get the MAX of the ASSESSMENT_ID column increment that value by one when adding a new row to the table.

The LOCCS/HUDCAPS interface will be changed. Currently when the system is uploading the data from LOCCS/HUDCAPS, the system creates permanent tables in the database to hold the data coming from LOCCS/HUDCAPS. When the data is loaded into REAC's database, the tables that were created are dropped. This process is inefficient and uses many of the database server resources. The system will be changed so that temp tables are created to hold the data coming from LOCCS/HUDCAPS. When the data is loaded into REAC's database, the temp tables will automatically go away.

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2.6 Failure Contingencies

Recommended failure contingencies are documented in the table below. To effectively communicate all issues relating to system failure, REAC and HUD IT must develop an agreement. All communication should occur in a timely manner. Additionally, REAC must be prepared to notify its business partners (PHAs, Field Offices, etc.) of any major system failure. Reference the HUD Business Resumption Plan for information on REAC's manual business resumption plan in the event of a system failure.

Cont. #	Point of Failure	Failure	User Impacted	Recommended Max Downtime	Recommended Contingency Plan
1.0	**Client**				
1.1	Hardware	Hardware failure	Single/ Group	1 hour	Utilize backup hardware.
1.2	Software	Program error/failure	Single/ Group	1 hour	Provide scheduled backups to software programs (production programs and programs in development).
1.3	Communications	Internet/Intranet failure	All/Single/ Group	None	Utilize additional communication equipment for back up.
1.4	Data	Data failure: corrupted files or hardware failure	Single/ Group	None	Provide regular backups to production data. A mirror backup with real-time accuracy is available.
1.5	Timing	Data update failure	Single/ Group	None	Utilize existing backup resources.
2.0	**Server**				
2.1	Hardware	Hardware failure	All	None	Utilize backup hardware (backup server, etc.).
2.2	Software	Program error/failure	All	None	Utilize backup software if necessary.
2.3	Communications	Internet/Intranet failure	All	None	Utilize backup resources or allow functions to be performed via the REAC Technical Assistance Center.
2.4	Data	Data failure	All	None	Utilize existing backup resources. Provide regular backups to production data. A mirror backup with real-time accuracy is suggested.

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Cont. #	Point of Failure	Failure	User Impacted	Recommended Max Downtime	Recommended Contingency Plan
2.5	Timing	Data update failure	All	None	Utilize existing backup resources.

Backup: HUD performs nightly incremental and weekly full back-ups of their servers and databases. All backups are performed using a tape medium. Additionally, the Continuity of Operations Plan (COOP) architecture provides a real-time backup database, in the event of database failure. Refer to the contingencies listed in the above table. Please refer to the HUD Business Resumption Plan.

Fallback: In the event that FASS-PH is unable to perform the necessary functionality, the REAC FASS-PH team may need to perform the necessary analysis manually.

Degraded Modes of Operation: FASS-PH must be restored completely in the event that full processing capability is not available.

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2.7 System Logical Flow

FASS-PH assists in enabling centralized financial analysis, which is used to identify where HUD should focus its limited resources in order to improve service delivery and manage its housing programs proactively.

Please reference the Functional Requirements Document, Section 4.2, for the high-level outline of FASS-PH functions.

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3.1 Equipment Environment

3.1.1 Processors

To access the FASS-PH Release 8.1.0.0 system, users will operate a personal computer capable of accessing the Internet and running a HUD-compliant web browser application. Currently, HUD requires users to use Microsoft Internet Explorer 6.0, or Netscape Communicator version 4.79 to access their systems. The Internet Submission server is a cluster of eight Sun® Enterprise servers utilizing a Cisco® LocalDirector® to balance the server load.

The following is a table of specifications for the web cluster currently running the FASS-PH application:

SW/HW	Hudapps5	Hudapps6	Hudapps8	Hudapps9	Hudapps10	Hudapps11	Hudapps12	Hudapps13
OS	Solaris 8							
Application server	Macromedia's ColdFusion 5.0							
Webserver	IPlanet Web server 7.0							
Cluster S/W	Interwoven's TeamSite 5.5.2 & OpenDeploy 5.5.1							
LDAP	Netscape Directory Server 4.1.6SP1	Netscape Directory Server 4.1.6SP1	Netscape Directory Server 4.1.6SP1	Netscape Directory Server 4.1.6SP1	None	None	None	None
Machine Type	Sun Enterprise 3500	Sun Enterprise 3500	Sun Enterprise 450	Sun Enterprise 3500	Sun Enterprise 420R	Sun Enterprise 420R	Sun Enterprise 420R	Sun Enterprise 420R
CPU	4X336MHz	4X336MHz	4X400MHz	2X336MHz	4X450MHz	4X450MHz	4X450MHz	4X450MHz

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SW/HW	Hudapps5	Hudapps6	Hudapps8	Hudapps9	Hudapps10	Hudapps11	Hudapps12	Hudapps13
RAM	1GBRAM	1GBRAM	1GBRAM	1GBRAM	4GB RAM	4GB RAM	4GB RAM	4GB RAM
HDD	8X9GB	8X9GB	36GB	2X9GB 1X18GB	2X38GB local, SAN	2X38GB local, SAN	2X38GB local, SAN	2X38GB local, SAN

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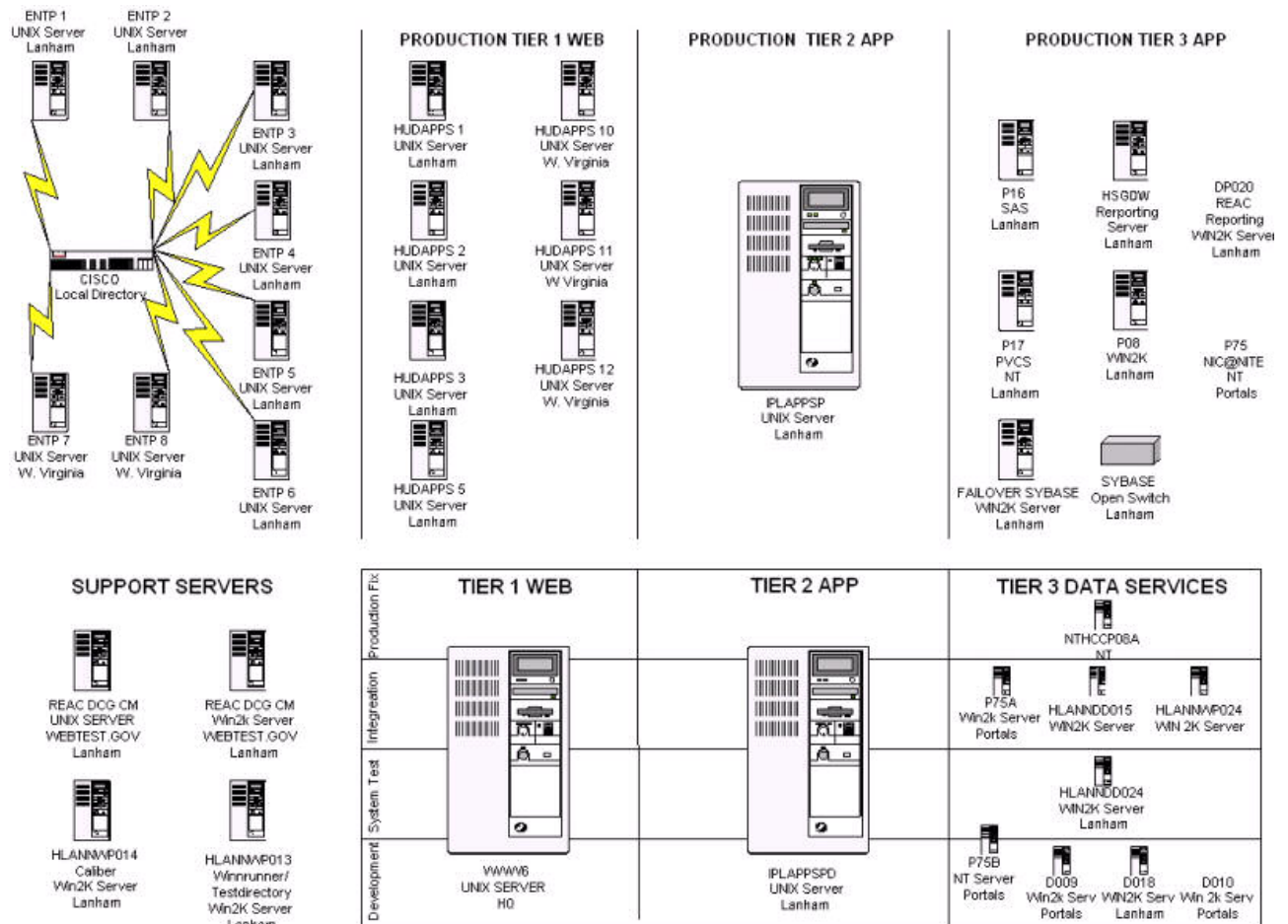
3.1.2 Storage Media

Please reference the Database Specifications Document for the reacs database, which is maintained by DCG.

3.1.3 Input/Output Devices

Transactions with FASS-PH will be performed over either the Internet for external users or the Intranet for internal users. Each user must have a computer. Users must take responsibility to obtain computers.

3.2 Communications Environment

The following diagram describes the Lanham Operations Facility and REAC Architecture.

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3.2.1 Network

FASS-PH uses the standard HUD network configuration.

3.2.2 Interface Protocol

FASS-PH uses the HUD standard HTTP and HTTPS protocol.

3.3 Software Environment

Please reference section 3.1.1 and 3.1.2 of this document for a description of the software environment.

FASS-PH clients will access FASS-PH through personal computers running Windows 95 or higher operating system. For HUD users, the computers will have HUDWARE II software installed including Internet Explorer 6.0, Microsoft Office 2000 Adobe Acrobat Reader 5.0 and Internet connection software.

3.4 Software Interfaces

FASS-PH integrates with several other PHAS subsystems within the PIH-REAC environment. This integration allows FASS-PH to provide information more readily to the user from different interface points, easing the user experience.

System: **HUD Secure Connection / Secure Systems (WASS)**

Purpose: FASS-PH uses HUD Secure Connection and Secure Systems for security. See Section 4.0 (Security) of this document, for a more detailed assessment of the FASS-PH security requirements.

Impact: The usage of HUD Secure Connection and Secure Systems for security is high-risk. Sensitive and private information is transmitted via this connection, and cannot risk being compromised by an outside source. Additionally, if Secure Systems is offline, access to FASS-PH will also be offline. FASS-PH requires that HUD Secure Connection and Secure Systems provide 24 hours a day, seven (7) days a week uptime to maintain its own ability to remain available to FASS-PH users 24 hours a day, seven (7) days a week.

System: **Integrated Assessment Subsystem (NASS)**

Purpose: NASS integrates with all PHAS subsystems. The purpose of NASS integration includes the following capabilities:

- Generate a PHAS score for each completed PHA submission;

- Process late presumptive failures;

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- Process FASS-PH audit waivers;

- Allow authorized users to invalidate an approved submission to allow a PHA to resubmit their financial information;

- Provide necessary data to generate the High Reserve and Liquidity Adjustment Report;

- To handle correspondence to external users;

- Allow authorized users to make necessary FASS-PH score adjustments;

- Provide an interface to the scoring information for all PHAS subsystems;

- Extension request functionality;

- Manual submission request functionality.

Impact: This is a high-risk connection. NASS retrieves scoring data from all PHAS subsystems, scores PHAs and displays Subsystem Scores on its interface. Additionally, NASS is responsible for processing FASS-PH late presumptive failures and for triggering all the FASS-PH correspondence letters.

System: **Quality Assurance Subsystem (QASS)**

Purpose: QASS integrates with FASS-PH. The purpose of QASS is to maintain and update the IPA information and assigning Unique IPA Identifiers (UII) to each IPA office. FASS-PH uses QASS to retrieve valid auditor information. For example, PHAs, auditors, and internal PIH-REAC personnel are required to enter valid UIIs on the FASS-PH DCF and FASS-QA referral pages to complete audited submissions, conduct IPA reviews, and create FASS-QA referrals for IPAs. In addition, starting with Release 8.0.0.0, QASS has maintained and updated PHA fee accountant information through assignment of Unique Fee Accountant Identifiers (UFI).

Impact: Disruption of the FASS-PH/QASS integration could have a major impact for FASS-PH audited submissions. A PHA could be prevented from obtaining its valid UII information if QASS does not function properly, thereby preventing a PHA from submitting its audited data via FASS-PH.

3.5 Diagnostics

The FASS-PH team has the ability to verify ColdFusion and application error messages that are received in production at the web addresses listed below. Each address represents one of the application servers in the production cluster.

- http://hudapps5.hud.gov:2000/Coldfusion_logs/

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- http://hudapps6.hud.gov:2000/Coldfusion_logs/

- http://hudapps8.hud.gov:2000/Coldfusion_logs/

- http://hudapps9.hud.gov:2000/Coldfusion_logs/

- http://hudapps10.hud.gov:2000/Coldfusion_logs/

- http://hudapps11.hud.gov:2000/Coldfusion_logs/

- http://hudapps12.hud.gov:2000/Coldfusion_logs/

- http://hudapps13.hud.gov:2000/Coldfusion_logs/

The availability of the production environment can be verified at the following web address:

- http://10.210.19.36:4545.

The FASS-PH team also has the ability to report FASS-PH application and data issues found in the production environment by calling in the problem via the Service Ticket Action Resolution System (STARS) and/or submitting a System Change Request (SCR) via the REAC Change Control Board (CCB). The procedures related to initiating an SCR via the REAC CCB can be found in the REAC Document Library database under the title Development Coordination.

3.6 Data and Reports

3.6.1 Inputs

The following table identifies the inputs that the FASS-PH Release 8.1.0.0 will be receiving. Input characteristics are also listed:

3.6.1.1 Inputs	Opinion of the Fund.
Format and Type of Data	Text strings.
Validation Criteria	For DCF/Financial Statement/G3000-010 Type of Audit Report/G3000-060 & G3000-070, "Opinion of the Fund" will be reflected rather than Program.
Volume	Variable.
Frequency	One time.
Means of Entry	Updating page_ref table.
Source Documents & their disposition	REAC FASS-PH External and Internal User.
Security and privacy consideration	Secure Connection, user login ID.

3.6.1.2 Inputs	Prior Years' Submission Comments.
Format and Type of Data	Text strings.
Validation Criteria	By default the interface will display all comments and

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	their attributes the selected year. If PHA doesn't have any comments for the selected FY year, the interface will indicate that fact.
Volume	One time.
Frequency	One time.
Means of Entry	New stored procedures. A link on the comments interface will redirect users to the "View Prior FYs Comment" interface.
Source Documents & their disposition	REAC FASS-PH Internal Users.
Security and privacy consideration	Secure Connection, user login ID.

3.6.13 Inputs	Additional valid value for DCF Line Item G4200-050.
Format and Type of Data	Text strings.
Validation Criteria	Data must meet validation criteria or a pop-up warning will alert the user that they must select "N/A" in order to proceed with the DCF.
Volume	Variable.
Frequency	Variable.
Means of Entry	page_ref and program_ref tables.
Source Documents & their disposition	REAC External Users.
Security and privacy consideration	Secure Connection, user login ID.

3.6.1.4 Inputs	Line Item 1102.
Format and Type of Data	Number.
Validation Criteria	No entries allowed for Line Item 1102 starting FY 09/30/2005 and beyond. If a user enters data for this line item, a pop-up message will be displayed.
Volume	Variable.
Frequency	Variable.
Means of Entry	submission_line_item table.
Source Documents & their disposition	REAC FASS-PH External User.
Security and privacy consideration	Secure Connection, user login ID.

3.6.1.5 Inputs	Analyst Column of the External System.
Format and Type of Data	Text strings.
Validation Criteria	The system will display only the Business Manager or FASS Analyst's names in the FASS Analyst column, based on the business rules that a Director's name should never be displayed.
Volume	Variable.
Frequency	Variable.
Means of Entry	Stored procedures.
Source Documents & their disposition	REAC FASS-PH External Users.
Security and privacy consideration	Secure Connection, user login ID.

3.6.1.6 Inputs	Printing Functionality
Format and Type of Data	Numbers, text strings

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Validation Criteria	Apply page break for FDS report page when printing.
Volume	One time.
Frequency	One time.
Means of Entry	FDS report page.
Source Documents & their disposition	REAC FASS-PH Internal and External Users.
Security and privacy consideration	Secure Connection, user login ID.

3.6.1.7 Inputs	File attachments storage.
Format and Type of Data	Data files: Portable data file (.pdf), Microsoft Excel (.xls), Microsoft Word (.doc), Rich Text Format (.rtf).
Validation Criteria	Backend application and database fix. Download of attached files.
Volume	Variable.
Frequency	Variable.
Means of Entry	Data insert script.
Source Documents & their disposition	REAC External Users.
Security and privacy consideration	Secure Connection, user login ID.

3.6.1.8 Inputs	Use of https on port 443.
Format and Type of Data	Text strings.
Validation Criteria	Remove all hard coded port number, and replace with relative server name. Backend application fix.
Volume	One time.
Frequency	One time.
Means of Entry	Cold Fusion Application file.
Source Documents & their disposition	REAC FASS-PH Internal and External Users.
Security and privacy consideration	Secure Connection, user login ID.

3.6.1.11 Inputs	Removal of Check Box for Guest Users.
Format and Type of Data	Text strings.
Validation Criteria	When a user logs into FASS-PH through the WASS interface, a guest role code will be assigned. FASS-PH will check its role codes table for that user for other roles the user is assigned. If the user has another role code, he will be assigned his FASS-PH role code. But if the user does not have a FASS-PH role code, his role code will default to GUEST.
Volume	Variable.
Frequency	Each instance of login.
Means of Entry	WASS login interface, cold fusion code modified.
Source Documents & their disposition	Internal Users.
Security and privacy consideration	Secure Connection, user login ID.

3.6.1.12 Inputs	Remove Identity Type for participant assessment.
Format and Type of Data	Number.

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Validation Criteria	When a new row is added, a MAX of the ASSESSMENT_ID column will be incremented by the value of one.
Volume	One time.
Frequency	One time.
Means of Entry	Participant_Assessment table.
Source Documents & their disposition	REAC FASS-PH External Users.
Security and privacy consideration	Secure Connection, user login ID.

3.6.1.13 Inputs	LOCCS/HUDCAPS interface change.
Format and Type of Data	Text strings, numbers.
Validation Criteria	Backend database check to ensure data was entered into database table.
Volume	Variable.
Frequency	Quarterly.
Means of Entry	LOCCS/HUDCAPS data upload interface.
Source Documents & their disposition	REAC FASS-PH Internal Users.
Security and privacy consideration	Secure Connection, user login ID.

3.6.1.14 Inputs	Text Change for line item G5150-010.
Format and Type of Data	Text strings.
Validation Criteria	Text change for line item G5150-010 description column text will be displayed on the screen.
Volume	One time.
Frequency	One time.
Means of Entry	Updating indicator_group_item table.
Source Documents & their disposition	REAC FASS-PH Internal and External Users.
Security and privacy consideration	Secure Connection, user login ID.

3.6.2 Outputs/Reports

The following table identifies the output data and reports for FASS-PH Release 8.1.0.0.

Outputs / Reports	Output/ Report Format	Selection Criteria for Displays and Outputs	Types of Output Media	Disposition of Products
DCF/Financial Statement/G3000-010 text change	Online	'Type of Audit Report' description will display 'Fund Opinion(s)'	User Display	At least 3 years
Prior years' submission comments	Online	Internal users will have the capability to review prior years submission comments while still reviewing the current year's submission.	User Display	At least 3 years

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Outputs / Reports	Output/ Report Format	Selection Criteria for Displays and Outputs	Types of Output Media	Disposition of Products
Pop-up message alert	Online	A pop-up warning alert will be displayed in order to proceed with the DCF for line item G4200-010, if it has 'No' selected and line item G4200-050 if it does not have 'N/A' selected.	User Display	At least 3 years
Line Item 1102	Online	A pop-up message will appear if a user enters data for this line item.	User Display	At least 3 years
FASS Analyst column of the External Inbox	Online	FASS-PH Business Manager and FASS Analyst name will be displayed in the FASS Analyst column. Director name is never displayed. If a director reviews a submission, the name to be displayed on the FASS Analyst column will be the last manager that reviewed the submission.	User Display	At least 3 years
FDS Reports	Online	This printing function will allow the FDS report page to break correctly	Print	At least 3 years
Line Item G5105-010	Online	Text change on line item G5105-010.	User Display	At least 3 years

4.0   SECURITY

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4.0 Security

4.0 Security

4.1 Control Points

4.1.1 Input Control Points

- Origin: The input control points function is performed by the data sources and is outside the scope of FASS-PH.
- Data Entry: The following user groups are permitted to perform data entry, update and corrective actions:
    1. PHAs/Agents – Financial Data Submissions
    2. REAC – Financial Data Review plus appropriate acceptance and maintenance access
    3. HUD – Financial Data Review Access
- Disposition: The source data will be stored in the system until such time as three (3) years has expired or the data is deemed no longer current. When either of these cases occurs, the source data will be stored on a long-term storage medium by the DCG and HUD IT. For further information concerning source data disposition, please reference the HUD Handbook Directive 2229.1, "Records Disposition Scheduling for Automated Systems".

Defined security profiles will enable REAC to accomplish the mission of FASS-PH in an auditable and secure manner. There will be External Coordinators and a REAC System Administrator. The External Coordinators are entered into Secure Connection as a coordinator and are authorized to assign FASS-PH roles to user Ids for a specific PHA or Section 8 Entity. The REAC System Administrator is also entered into Secure Connection and is authorized to assign FASS-PH roles to internal user IDs.

Role Code	Role	Definition
MRA	FASS Program Director	REAC FASS Program Director.
FID	FASS-PH Finance Director	REAC Finance Director.
AM	FASS-PH Assessment Manager	REAC Assessment Manager.
RFA	FASS-PH Analyst	REAC Analyst.
CPV	IPA Verifier	IPA who will verify the audited submissions of a PHA or Section 8 Entity.
PID	PHA Director	PHA and Section 8 Entity Executive Director.
FIA	PHA Analyst	PHA and Section 8 Entity Analyst(s).
SMT	PHA Submitter	PHA and Section 8 Entity users who will be submitting data to REAC.
GUS	Guest	Other HUD users. The GUS role will never be assigned to a REAC FASS-PH user ID.

Due to the varied functionality of the system, it is necessary to control user access to the system based upon defined user roles and assigned actions. One or more actions are assigned to one or many roles. Roles will be assigned to a user's ID by the designated coordinator. The program

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specifications will detail object-level security for each screen. Some of the action codes are based on factors such as PHA assignment to a REAC Analyst, PHA risk categorization, and whether there are score adjustments, late penalties or submission rejections.

4.1.1.1   Process Control Points

Accuracy and Completeness: The following table describes the points in the processing where the system should determine and notify the user whether the input data was acceptable and whether the requested processing was completed.

Notification	Notification Medium
Login	The browser displays the secure connection page.
FASS-PH Template Download	The browser refreshes with pertinent options displayed.
FASS-PH Template and Submission Download	The browser refreshes with pertinent options displayed.
Saving FASS-PH Submission information	The browser refreshes with the input data from the database displayed. If the save fails, an error is displayed in the browser.
Validation of FDS	The browser displays a successful validation page. Otherwise, an error page displays listing violated business rules.
Validation of submission	The browser displays the following message: "Your submission completeness check is complete. Please use your Browser Back button to return to the previous screen." Otherwise, an error page displays listing violated business rules. If submission was unsuccessfully processed, user receives following error message: "Your last request was not processed successfully. Please click on the Back browser button and resubmit your request."
Upload of files	A message box appears stating "File Transfer complete."
Submission of information to REAC	The browser displays the message "Congratulations – your submission has been successfully transmitted to REAC." Otherwise, the browser displays an error message.
Submission of information to IPA reviewer	The browser displays the message "Please make sure your Independent Public Accountant completes the second step of the audited submission process. If you have any questions regarding this process, please contact your REAC analyst." Otherwise, the browser displays an error message.

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Notification	Notification Medium
Submission of information from IPA reviewer	If the IPA reviewer accepts the submission, the browser displays the message: "Please make sure to remind your PHA to submit this completed submission to REAC. If you have any questions regarding this process, please contact your REAC analyst." If the IPA review rejects the submission, the browser displays the message: "Please make sure to remind your PHA to resubmit a corrected submission to the IPA. If you have any questions regarding this process, please contact your REAC analyst." If submission was unsuccessfully processed, user receives following error message: "Your last request was not processed successfully. Please click on the Back browser button and resubmit your request."
XML (WDDX) packet submission	An XML (WDDX) packet will be returned immediately to the users upon processing of their original packets.
Update Auto Accept Criteria	Upon successful or unsuccessful validation of updates, system will display a message to the user indicating status of update.

4.1.1.2 Triggering Criteria

None applicable for Release 8.1.0.0.

4.1.2 Output Control Points

- **Production**: The following user groups are permitted to request and/or receive output from FASS-PH:
    1. PHA Coordinator
    2. Employees of PHAs
    3. REAC Users
    4. HUD Users

- **Distribution**: The following table involved in the distribution and disposition of output products for FASS-PH Release 8.1.0.0:

Description of Output	Distribution Rights
Program-based Edit Flags report	All users can generate this report.
Entity-wide Edit Flags report	All users can generate this report.
Auto Acceptance through Manager or Director Levels	Only users with FID or MRA role codes can access and modify criteria.
DCF Report	All users can generate this report.

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Description of Output	Distribution Rights
Comparative FDS (Audited – Unaudited) Report	All users can generate this report.

4.2 Vulnerabilities

REAC is susceptible to misrepresentation of information by individuals not authorized to submit data from the external users. To address this, Executive Directors will be mailed coordinator IDs to distribute appropriately. All external users will then apply for an ID, which will be sent to the coordinators. The coordinator will have rights to grant appropriate system access to the user of that entity. This is further detailed in the 7.3.0.0 Risk Assessment and the System Security and Privacy Plan.

4.3 Safeguards

4.3.1 Administrative Safeguards

- Personnel: The REAC security administrator will require access to create, update and delete user IDs and access levels.
- Collection and Preparation: HUD performs nightly back-ups of the REACS database. All back-ups are performed using a tape medium. Based on previous data failure issues, a mirror backup with real-time accuracy is suggested.
- Constrained User Environment: FASS-PH is designed to be an online transaction system and will be available 24 hours a day, seven days a week, except for downtime during scheduled system maintenance and upgrades.
- Distribution: FASS-PH has the ability to allow Guest Users to access the system. These guest users will have the ability to view information only. Creation, modification, and deletion of information will be restricted to registered users only, granted by HUD Executive Directors.
- Access/Permission: The REAC security administrator will define user access and permissions to FASS-PH.

4.3.2 Physical Safeguards

- Dedicated Equipment: The REAC servers are located at the Lockheed Martin computer facility located in Lanham, Maryland.
- Storage and Protection: Server and database backups are stored in the tape library that is currently located in the fourth floor computer room at HUD headquarters. Other materials such as this Functional Requirements Document will be kept electronically both on the project LAN and in a Lotus Notes database. Each location provides adequate backup mechanisms, preventing loss in case of system failures.

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4.0 Security

4.3.3 Technical Safeguards

- User Access: The following lists requirements for managing user access:
  1. PHA Employees and Agents – External entities will manage their users by 'delegating' access to submit information to REAC. If a user has not been delegated this authority by an entity, they will not be able to submit or view any FASS-PH information.
  2. REAC – REAC users will be provided access to update FASS-PH information as appropriate.
  3. HUD – HUD users will be provided access to FASS-PH information as appropriate. Process Safeguards: Identify the need for any unique data validation procedures or data encryption that may provide added integrity.
- Process Safeguards: Even though the financial information FASS-PH collects is in the public domain, FASS-PH will encrypt the transmissions en route to verify financial information are not intercepted. This function is provided by HUD's Internet connection, which operates a secure Internet server for this purpose.
- Security Identification Requirements: Only authorized users can submit information to the FASS-PH. REAC has the ability to determine exactly who submitted information for which external entity. In addition, REAC plans to have HUD Secure Connections verify the entity's fiscal year end and EIN when a user applies for an ID. If this information does not match HUD's values, the submitter will not be provided with an ID and will need to call HUD to resolve the problem via the data's source system.