FSA Modernization Partner

NSLDS II Reengineering
System Interface Detail Design:
Financial Partner Data Mart
GA VFA Data Interface
I-FPDM-5

Version 1.1

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Document Control

Version Number	Description	Release Date	Author
1.0	Initial Issue	11/08/2002	Troy Edwards
1.1	Added descriptive statement to processing logic (Appendix A)	11/26/2002	Troy Edwards

1 Financial Partner (FP) Data Mart

NSLDS II will have five outgoing interfaces with the FP Data Mart. Two of these interfaces occur annually, and the other three occur monthly. NSLDS II will send Lender Cohort Default Rate information that has been calculated as part of the Cohort Default procedures performed within NSLDS II to the FP Data Mart annually. NSLDS II will also send Form 2000 Guaranty Agency (GA) information relating to payment reasonability issues.

The three monthly outbound interfaces from NSLDS II include:

(1) GA Claims Paid Data - Provides detailed information on claims paid to lenders for all current claim values.

(2) FFEL Loan Data – Information on FFEL loans for student records with an 'in school' status where enrollment data within NSLDS II indicates that the student has graduated, withdrawn, or dropped to less than half-time enrollment.

(3) GA Voluntary Flexible Agency (VFA) data – Information on GA cumulative edit data for submissions to NSLDS II.

All interface files will be sent in flat file format over the EAI BUS.

The FP Data Mart interfaces include:

- Lender Cohort Default Rates (**See Document: I-FPDM-1**)
- Form 2000 Data (**See Document: I-FPDM-2**)
- GA Claims Paid Data (**See Document: I-FPDM-3**)
- FFEL Loan Data (**See Document: I-FPDM-4**)
- GA VFA Data (**Section 1.2**)

1.1 System Specifics

1.1.1 NSLDS II

Item	Description
Production Platform *(Vendor/Product Name/Version)*	IBM / Cluster 1600 Server / 4 p-Series 660 Model 6M1 4 FastT500 Arrays
Operating System *(Vendor/Product Name/Version)*	UNIX / AIX / V 5.1 Parallel Systems Support Program (PSSP)
DBMS *(Vendor/Product Name/Version)*	IBM / DB2 Universal Database (UDB) / Enterprise Extended v. 7.2
Transmission Protocol	TCP / IP
Production System IP Address	TBD

Production System Location	Meriden, CT
Contracting Organization	Accenture – Modernization Partner
Developer Location	Modernization Partner Offices – Washington DC

1.1.2 FP Data Mart

Item	Description
Production Platform *(Vendor/Product Name/Version)*	Sun
Operating System *(Vendor/Product Name/Version)*	Sun / Solaris 2.6
DBMS *(Vendor/Product Name/Version)*	Oracle / Oracle 8
Transmission Protocol	TCP/IP
Production System IP Address	4.20.17.152
Production System Location	Meriden, CT
Contracting Organization	Accenture – Modernization Partner
Developer Location	Modernization Partner Offices – Washington DC

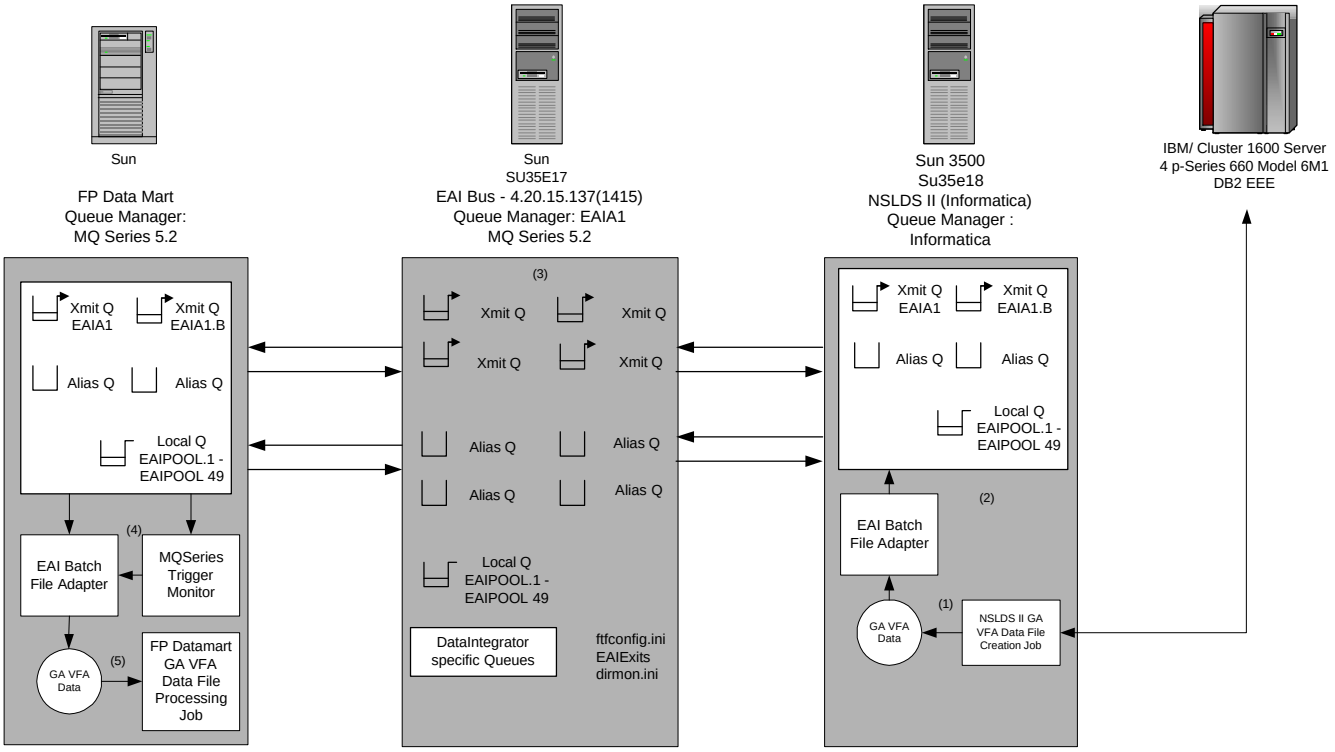
1.2 GA VFA Data Interface

1.2.1 Interface Control Specifications

Interface Name:	GA VFA Data
Interface Type/Direction:	Unidirectional, Batch Type
Interface Short Description:	This document defines the processes utilized by NSLDS II to create and transport the GA VFA Data File to the FP Data Mart through the EAI BUS. NSLDS II (Informatica) will create and submit the GA Voluntary Flexible Agency (VFA) Data File to the FP Data Mart through the EAI BUS. This file contains information on cumulative GA edit data for submissions to NSLDS II. Data within this file includes the pass/error rate for particular GA submissions to NSLDS II
Requesting Application: or Source Application:	NSLDS II is the source of the GA VFA Data File
Responding Application: or Destination Application:	FP Data Mart receives the GA VFA Data file
Detailed Technical Requirement References:	5.061
Interface Usage Frequency:	Monthly

Interface Usage Volume:	TBD
Output Media:	Flat File in EBCDIC Format
Transmission Mechanism:	EAI BUS

1.2.2 Interface Flow



1.2.3 Interface Flow Description

1. NSLDS II (Informatica) will initiate a process to create the GA VFA Data file
2. The EAI Batch File Adapter will move the file to the EAI BUS
3. The EAI BUS will route the file to the FP Data Mart server
4. The EAI Batch File Adapter will move the file to the /ftparea/fp_ftp_in/SrcFiles/NSPEP directory of the FP Data Mart server
5. The FP Data Mart GA VFA Data job will process the GA VFA Data

1.2.4 Source System Functional Specifications

#	Responsibility
1	NSLDS II will extract the GA VFA Data and save it as a flat file
2	The data extracted will be laid out as in section 1.2.8 Each record will consist of: One Header Record

	One or more Detail Records One Trailer Record
3	An EAI batch file adapter will be supplied to initiate the file transfer from NSLDS II to FP Data Mart
4	NSLDS II will provide the EAI adaptor file transfer utility with the following input parameters: Input File Name - TBD

1.2.5 Destination System Functional Specifications

#	Responsibility
1	The EAI BUS will deliver the School Data file to the /ftparea/fp_ftp_in/SrcFiles/NSPEP directory of the FP Data Mart server
2	The EAI Adaptor takes the following information as input: Queue manager name - TBD Queue name - TBD Sync point counter - TBD Output file name - TBD

1.2.6 Interface Assumptions

#	Assumption
1	MQ Series Queue Manager is installed / configured for the NSLDS II / FP Data Mart environment
2	The EAI architecture will be configured to support the transfer of data from NSLDS II to FP Data Mart

1.2.7 Error Messages

Code	Message
NA	NA

1.2.8 File Layout

Header Record Layout

Data Element	Field Position	Length	Type	Description	Edits	Mapping
Record Type	1-1	1	Char	Record type indicator	'0' for Header Record	NA
Header Title	2-51	50	Char	Header title	'Financial Partners F_VPS_Perf_RPT Header'	NA
Submit Date	52-59	8	Char	Date files sent from NSLDS II CCYYMMDD	Generated as part of Processing Logic	NA
Filler	60-80	21	Char	Attribute to complete record length	Spaces	NA

Detail Record Layout

Data Element	Field Position	Length	Type	Description	Edits	Mapping
Record Type	1-1	1	Char	Record type indicator	'1' for Detail Record	NA
GA Code	2-4	3	Char	Code for specific GA	NA	LOAN / CURR_GA_CODE
Numerator for Data Pass Rate	5-13	9	Numeric	Number of records with at least one open error	See Appendix A for Processing Logic	NA
Denominator for Data Pass Rate	14-22	9	Numeric	Number of open records	See Appendix A for Processing Logic	NA

Data Element	Field Position	Length	Type	Description	Edits	Mapping
NSLDS Extract Date	23-30	8	Char	Date data extracted from NSLDS II Tables	Generated as part of Processing Logic YYYYMMDD	NA
Filler	31-80	50	Char	Attribute to complete record length	Spaces	NA

Trailer Record Layout

Data Element	Field Position	Length	Type	Description	Edits	Mapping
Record Type	1-1	1	Char	Record type to indicate Trailer Record	'9'	NA
Trailer Title	2-51	50	Char	Title	'Financial Partners F_VPS_Perf_RPT Trailer'	NA
Record Count	52-60	9	Numeric	Count of Detail Records	NA	NA
Filler	61-80	20	Char	Attribute to complete record length	spaces	NA

1.3 Appendix A

Sample NSLDS II Query:

Step 1:

```
SELECT B.CURR_GA_CODE, SUM(COUNT_B) AS B, COUNT(*) AS A
,'20020508'
FROM
(SELECT  DISTINCT A.CURR_GA_CODE, A.NO,
A.LOAN_TYPE, A.DT, A.FFEL_DUP_ID, A.SCH_CODE,
CASE WHEN E.ERR_CODE IS NOT NULL THEN 1 ELSE 0 END AS COUNT_B
FROM
(SELECT S.NO,
L.LOAN_TYPE, L.DT, L.FFEL_DUP_ID, INT(L.SCH_CODE||L.SCH_BR_CODE) AS SCH_CODE,
L.CURR_GA_CODE
FROM ACTP.LOAN L, ACTP.STU_SSN S
WHERE L.LOAN_TYPE IN ('CL','RF','SF','SU','SL','PL')
AND L.CURR_LOAN_STAT IN ('AL', 'BK', 'DA', 'DB', 'DF', 'DL', 'DO',
                 'DT', 'DU', 'DX', 'DZ', 'FB', 'IA', 'ID',
                 'IG', 'IM', 'RP', 'UA', 'UB', 'XD')
AND L.CURR_GA_CODE NOT IN ('555','927')
AND L.STU_NO = S.STU_NO
AND L.STU_SEQ_NO = S.STU_SEQ_NO) AS A
LEFT OUTER JOIN ACTP.GA_SBMTL_RUN_ERR E
ON A.NO = E.STU_SSN
AND A.LOAN_TYPE = E.TYPE
AND A.FFEL_DUP_ID = E.FFEL_DUP_ID
AND A.DT = E.GUA_DT
AND A.SCH_CODE = E.SCH_CODE
AND E.STAT = 'O'
AND NOT ((FLD_IN_ERR_CODE = 195 AND ERR_CODE = 178)
  OR (FLD_IN_ERR_CODE = 119 AND ERR_CODE = 449)
  OR (FLD_IN_ERR_CODE = 174 AND ERR_CODE = 445)
  OR (FLD_IN_ERR_CODE = 191 AND ERR_CODE = 449)
  OR (FLD_IN_ERR_CODE = 20  AND ERR_CODE = 177)
  OR (FLD_IN_ERR_CODE = 90  AND ERR_CODE = 326)
  OR (FLD_IN_ERR_CODE = 25  AND ERR_CODE = 346)
  OR (FLD_IN_ERR_CODE = 20  AND ERR_CODE = 346)
  OR (FLD_IN_ERR_CODE = 26  AND ERR_CODE = 526))) AS B
GROUP BY B.CURR_GA_CODE
```

Step 2:

```
SELECT A.SBMTL_HIS_CODE, COUNT(*) AS C
```

```
FROM
(SELECT DISTINCT E.STU_SSN, E.TYPE, E.GUA_DT, E.FFEL_DUP_ID, E.SCH_CODE
, E.SBMTL_HIS_CODE
FROM ACTP.GA_SBMTL_RUN_ERR E
WHERE STAT = 'O'
AND E.TYPE IN ('CL','RF','PL','SF','SU','SL')
AND E.SBMTL_HIS_CODE NOT IN (555, 927)
AND ((FLD_IN_ERR_CODE <> 195 AND ERR_CODE <> 178)
  OR (FLD_IN_ERR_CODE <> 119 AND ERR_CODE <> 449)
  OR (FLD_IN_ERR_CODE <> 174 AND ERR_CODE <> 445)
  OR (FLD_IN_ERR_CODE <> 191 AND ERR_CODE <> 449)
  OR (FLD_IN_ERR_CODE <> 20  AND ERR_CODE <> 177)
  OR (FLD_IN_ERR_CODE <> 90  AND ERR_CODE <> 326)
  OR (FLD_IN_ERR_CODE <> 25  AND ERR_CODE <> 346)
  OR (FLD_IN_ERR_CODE <> 20  AND ERR_CODE <> 346)
  OR (FLD_IN_ERR_CODE <> 26  AND ERR_CODE <> 526))) AS A
WHERE NOT EXISTS (SELECT * FROM ACTP.LOAN L, ACTP.STU_SSN S
            WHERE S.NO = A.STU_SSN
            AND L.STU_NO = S.STU_NO
            AND L.STU_SEQ_NO = S.STU_SEQ_NO
            AND L.LOAN_TYPE = A.TYPE
            AND L.FFEL_DUP_ID = A.FFEL_DUP_ID
            AND L.DT = A.GUA_DT
            AND INT(L.SCH_CODE||L.SCH_BR_CODE) = A.SCH_CODE)
GROUP BY A.SBMTL_HIS_CODE
```

Step 3: Numerator equals Count B from Step 1 plus Count C from Step 2. Denominator equals Count A from Step 1 plus Count C from Step 2.

Processing Description:
For each GA, calculate the numerator, which is the number of records with at least one open error. Next, calculate the denominator, which is the total number of open records for that particular GA.