Deliverable 207-ICD: ADSEF Batch Participant Information: Interface Control Document (ICD)

MEDITI3G Project
Government of Puerto Rico

Version 3.1
September 22, 2023

Document Revision History

Table 1 - Document Revision History

Version Number	Date	Description
1.0	12/09/2019	Submission of the document for approval.
2.0	12/03/2020	The following changes were made to the document: • Updated Contract number, document version number to 2.0, and re-submission date. • Changed throughout the document the use of "will", "should", "would", and "could" to "shall". • Updated Table 2: Document Approval (page iv) and Table 3: Team members (page 3), based on changes of personnel within the team and stakeholders. • Page iv: Updated the Table of Contents to reflect the addition of the aforementioned tables. • Fixed table page numbers throughout the document. • Page 3, Section 1.2, Paragraph 2: Updated the last bullet. • Page 5, Section 1.4, Paragraph 7: Added the PGP term to the table. • Page 7, Section 3.2, Item 3: Added the constraint. • Page 10, Section 4.1 Paragraph 2: Added the word encrypted. • Page 10, Section 4.1 Paragraph 6: Added the word encrypted. • Page 12, Section 4.3 Paragraph 1: Added the word encrypted. • Page 16, Section 4.5, Paragraph 1: Included the PGP encryption details. • Page 16, Section 4.5, Paragraph 5: Included the PGP encryption details. • Page 19, Section 4.5, Paragraph 3: Included PGP details. • Page 19, Section 4.5, Paragraph 4: Updated the sentence. • Page 19, Section 4.5, Paragraph 6: Added the last sentence. • Page 21, Section 5.1.3, Paragraph 3: Included the PGP encryption details.

Version Number	Date	Description
		- Page 22, Section 5.1.3, Paragraph 2: Included the PGP encryption details. - Page 22, Section 5.1.3, Paragraph 11: Included the PGP encryption details. - Page 23, Section 5.1.3, Paragraph 2: Included the PGP encryption details. - Page 23, Section 5.1.3, Paragraph 4: Included the PGP encryption details. - Page 28, Section 5.1.5.3: Added the last sentence. - Page 28, Section 5.1.5.3.1.1: Updated the data groups. - Page 31, Section 5.1.5.3.1.1, Paragraph 5: Updated the table link. - Page 32, Section 5.1.5.3.1.1, Paragraph 6: Updated the table link. - Page 51, Section 5.1.5.3.1, Table 6: Updated the table and added the column "Type of Protected Data". - Page 53, Section 5.1.5.3.3.2, Paragraph 2: Updated the diagram. - Page 55, Section 5.1.5.3.1, Table 6: Updated the table and added the column "Type of Protected Data". - Page 55, Section 5.1.5.3.3.2: Eliminated StateHubError model information. - Page 61, Section 5.1.5.3.3.3: Added Error Response Code 0006 to the table. - Page 66, Section 5.1.7, Paragraph 3: Included the PGP encryption details. - Page 69, Section 5.1.7: Added paragraph 8 to include details on specific user roles with access to FTI data on the State Hub. - Page 69, Section 5.1.7: Added paragraph 9 to include details on security and release management. - Page 71, Section 6.1, Paragraph 1: Updated the schema file. - Page 71, Section 6.2, Paragraph 1: Updated the schema file. - Page 78, Section 10, Paragraph 1: Changed the word "will" for "shall".

Version Number	Date	Description
		• Page 79, Section 11: Changed the word "will" for "shall". • Page 80, Section 12: Added ADSEF Benefit Types and ADSEF Resource Income Types Tables to Appendix C and Appendix D respectively. • Page 84, Section 12, Paragraph 2: Updated the mock service document.
3.0	2/28/2022	• Updated Document Approval section to include Alexander Quevedo as the new stakeholder to approve technical documents. • Updated section 1. • Updated Section 1.3 Team members. • Updated section 1.4. • Updated section 2. • Updated section 3. • Updated section 3.1. • Updated section 3.2. • Updated section 3.3 Risks and Issues. As of 2/28/22, no risks or issues are open in the project's DDI SharePoint site related to ADSEF. • Updated section 4.1. • Updated section 4.2. • Updated section 4.3. • Updated section 4.4. • Updated section 4.5. • Updated section 5.1.1. • Updated section 5.1.2. • Updated section 5.1.3. • Updated section 5.1.4. • Updated section 5.1.5.2. • Updated section 5.1.5.3.1.1. • Updated section 5.1.5.3.1.2. • Updated section 5.1.5.3.2.1. • Updated section 5.1.5.3.2.2. • Updated section 5.1.5.3.3.1. • Updated section 5.1.5.3.3.2. • Updated section 5.1.5.3.3.3. • Updated section 5.1.6. • Updated section 5.1.6.1. • Updated section 5.1.6.2. • Updated section 5.1.7. • Updated section 7.

Version Number	Date	Description
		• Updated section 8. • Updated section 9. (Removed mentions of PHI or FTI.) • Updated section 11. • Removed section 12 (Appendix B) • Updated section 12 (formerly section 13 and Appendix C) – Added the Note. • Updated section 13 (formerly section 14 and Appendix D) – Added the Note.
3.1	9/22/2023	• Updated document version number to 3.1, and re-submission date. • Page 16, Section 4.1, bullet 1: Updated the second sentence. • Page 29, Section 5.1.4, Paragraph 1: Updated the second sentence. • Page 30, Section 5.1.5.2, Paragraph 1: Updated the sentence 4 and 5. • Page 30, Section 5.1.5.2, Paragraph 1: Deleted the sentence 6. • Page 53, Section 9, Table 26: Updated the item 1. • Page 54, Section 9, Table 26: Updated the item 2.

Document Approval

Table 2 - Document Approval

Stakeholder Name	Stakeholder Role	Stakeholder Signature	Signature Date (MM/DD/YYYY)
Alexander Quevedo	State HIT Coordinator		

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Table of Contents

LIST OF TABLES

LIST OF FIGURES

1 Introduction

The following document shall describe in detail the interaction of a Data Verification Interfaces hosted in the State Hub. The State Hub is the Data Hub for MEDITI3G Initiative of the Puerto Rico Department of Health. The Administration for Socioeconomic Development for Families (ADSEF, in Spanish "Administración de Desarrollo Socioeconómico de la Familia") Batch Participant Information Interface (henceforth Local Interface) is an interface between the MEDITI3G System and the ADSEF System. The MEDITI3G System shall send a batch request file to the interface to gather information about the applicant/beneficiary in the ADSEF System. The interface shall collect the information returned by ADSEF (henceforth Local Agency) and return it to the MEDITI3G System. As part of the efforts to move forward with MEDITI3G, the Local Interface shall be part of the State Data Verification Hub (henceforth State Hub).

1.1 Purpose of Interface Control

This Interface Control Document (ICD) documents and tracks the information required to define the Local Interface, which establishes connection and interaction between the MEDITI3G System and the ADSEF System, aiming to bridge access to critical participant information from the Local Agency through the State Hub via batch transactions. This document establishes the specifications that the Local Interface shall contain in general, the connectivity standards between the systems, the message formatting to communicate the systems, which capabilities shall be supported by the interface, and the security considerations that shall be met.

The intended audience of the Local Interface ICD is composed of all project stakeholders, including the project sponsor, senior leadership, and the project team.

1.2 Scope

This document describes the service interactions, assumptions, activities, constraints, process flow, and data elements for the Local Interface. The data elements that the interface shall process from the Local Agency are resource income, the amount, and payment frequency.

The following list defines the functionalities that are within the scope of this deliverable:

- The MEDITI3G System shall submit the PRMP participant information collection of requests to be processed by the Local Interface to look up the information in the ADSEF System via batch transactions.
- The interface shall convert the responses to the standard format.
- Request and response schema validations shall be done by the Local Interface. All specified/provided rules are explained in detail in section 5: Detailed Interface Requirements.
- Log Local Interface audit trail.
- Errors shall be classified as system or data errors and shall be logged independently within the Local Interface for reference purposes.
  - System errors are those related (but not limited) to (1) an unexpected error while the interface processes the requested file.
  - Data errors are those that occurred while enforcing the data validation rules described in section 5: Detailed Interface Requirements.
- The Local Interface shall be MARS-E and HIPAA compliant. Security measures shall be performed to follow PRDoH security standards and procedures. To comply with security guideline rules, all extracted data shall be handled in the State Hub internal network and shall not be transmitted outside the network while being processed. The requests and responses shall not be persisted in the State Hub, except for the files that are not processed within 14 days.

1.3 Team Members

The following team members shall provide their feedback for this document.

Table 3 - Team Members

Participants	Organization
Pedro Dohnert	ADSEF
Jean Beaty	PMO
Blake Hansard	PMO
Alexander Quevedo	PRMP

Participants	Organization
Irma Avilés	PRMP
Evelyn Santos	PRMP
Iván Imbert	PRMP
Ryon Johnson	RedMane
Stephanie Nieves	RedMane
Brandon Peclyak	RedMane
Tamera Jones	Redmane

1.4 Glossary of Terms

Table 4 - Glossary of Terms

Acronym/Term	Definition
ADSEF	Administration of the Social-Economical Development of Family. In Spanish means: "Administración de Desarrollo Socioeconómico de la Familia
AES	Advanced Encryption Standard
CIO	Chief Information Officer
CMS	Centers for Medicare & Medicaid Services
DOB	Date of Birth
EFT	Enterprise File Transfer
FIPS	Federal Information Processing Standards
FPLS	Federal Parent Locator Service
FTI	Federal Tax Information
GB	Gigabyte
GHP	Government Health Plan
HIPAA	Health Insurance Portability and Accountability Act
HIT	Health Information Technology
HITECH	Health Information Technology for Economic and Clinical Health

Acronym/Term	Definition
HTTPS	Hypertext Transfer Protocol Secure
ICD	Interface Control Document
IRS	Internal Revenue Service
IV&V	Independent Verification & Validation
KB	Knowledge Base (usually referred to Microsoft issued patches)
MARS-E	Minimum Acceptable Risk Standards for Exchanges
MEDITI3G	Medicaid Integrated Technology Initiative Third Generation
NACK	Negative Acknowledgment (NACK) files are the way the Local Interface shall transmit to the Requestor System that an error occurred
NIEM	National Information Exchange Model
OIAT	Puerto Rico Department of Health's System Information Department. In Spanish means: "Oficina de Informática y Avances Tecnológicos"
PAN	Nutritional Assistance Program. In Spanish means: "Programa de Asistencia Nutricional"
PGP	Pretty Good Privacy.
PHI	Protected Health Information
PII	Personally Identifiable Information
PMO	Project Management Office
PRDoH	Puerto Rico Department of Health
Requestor System	Name to identify the solution used by the PRMP caseworkers for eligibility management.
PRMP	Puerto Rico Medicaid Program
Requester	Administrator, auditor, or any other authorized consumer of service providers
RSA	Rivest-Shamir-Adleman Cryptosystem
SHA	Secure Hash Algorithm
SFTP	Secure File Transfer Protocol
SLA	Service Level Agreement
SI	System Integrator
SOAP	Simple Object Access Protocol
SSH	Secure Shell
SSN	Social Security Number
SSP	System Security Plan

Acronym/Term	Definition
TANF	Temporary Assistance for Needy Families
TDS	Trusted Data Source
UML	Unified Modeling Language
UNIX	Uniplexed Information and Computer Systems
VPN	Virtual Private Network
XML	Extensible Markup Language

2 Overview

ADSEF is the Local Agency in Puerto Rico responsible for the coordination of the PAN and TANF benefits for the families in Puerto Rico.

The Requestor System, through these batch requests, shall query the Local Interface for information regarding an applicant's/beneficiary's information in a Local Agency. The batch requests shall contain an applicant's/beneficiary's basic personally identifiable information. The Local Interface shall interact with the Local Agency to find the information in their system and return it to the Requestor System.

This solution establishes that the Local Interface is implemented as core components of the State Hub in an Azure Government environment to guarantee high availability, redundancy, data integrity, and data security using the HIPAA Privacy Rule, HIPAA Security Rule, and CMS Standards and Conditions as the basis.

3 Assumptions/Constraints/Risks/Issues

Several factors influence the expectations of the Local Interface. They have been categorized as assumptions, constraints, and risks.

3.1 Assumptions

The following assumptions apply to the ADSEF Batch Interface:

1. There shall be a signed Memorandum of Understanding (MOU) agreement in place with ADSEF to allow the sharing of ADSEF System information.

2. The Requestor System shall use the interface to assist Medicaid in determining the renewal eligibility of PRMP participants.

3. The Local Agency shall promptly notify PRDoH and Wovenware the identified MEDITI3G operational personnel of any maintenance window not previously scheduled or agreed upon.

4. The Local Agency shall have maintenance windows at least one or two times a month during the weekends.

5. Azure Government cloud shall maintain backward compatibility for up to three (3) versions allowing enough time to update code for new offerings of services and components. The inclusion of new offerings later shall not negatively impact compatibility and compliance with HIPAA and MARS-E.

6. The identified MEDITI3G key personnel shall establish the necessary procedures to grant access to the SFTP Server.

3.2 Constraints

This section defines limitations, such as external dependencies, identified during the interfaces' requirements gathering.

1. The interface shall be dedicated to communicating to a single Trusted Data Source (TDS) for requesting data.

2. The State Hub, the environment that shall contain the Local Interface, shall not manage files greater than 100 Gigabytes (GB).

3. The Federal Hub implements NIEM 2.0 and has not indicated when they would upgrade. Since newer versions are not backward compatible with older versions, the State Hub and the Local Interfaces shall also use NIEM 2.0.

3.3 Risks and Issues

No risks nor issues are currently open in the project's SharePoint site: PREE DDI - Home (sharepoint.com)

4 General Interface Requirements

This section describes the general functional decomposition of the Local Interface used by the Requestor System when requesting an applicant's/beneficiary's information from ADSEF's System. In addition, it shall cover the security and integrity requirements needed for the request to be considered successful and achievable.

4.1 Interface Overview

The Local Interface residing in the State Hub shall connect the Requestor System with the ADSEF System seeking to acquire beneficiaries' personal information in an Application-to-Application asynchronous behavior.

- The interface is expected to receive an encrypted batch request file(s) from the Requestor System monthly, at a minimum, through SFTP. The interface shall handle up to one (1) ZIP file at a time for batch processing. The batch request file contains individual requests with beneficiaries' personally identifiable information that can be used to locate the beneficiary's information within the agency's system, information such as SSN, Name, and Date of Birth (DOB).

- The interface shall validate the received file and place the requests for the Local Agency to retrieve from the ADSEF Batch Participant Information Interface via State Hub SFTP.

- The Local Agency shall process and respond via SFTP to the ADSEF Batch Participant Information Interface with each beneficiary's personal information, address, Nutritional Assistance Program (PAN, in Spanish: "Programa de Asistencia Nutricional") and Temporary Assistance for Needy Families (TANF) information, and income reported to the agency for the last month. More details can be found in Section 5.1.5.3.3.2 - ADSEF Response Data Elements.

- Alternatively, the Local Agency shall determine instead to return a negative acknowledgment (NACK) back to the interface in the scenarios where the Local Agency cannot process the submitted batch request file, scenarios such as when the batch request file fails validation.

- Once the responses have been received from the agency, the interface shall pack the response(s) in an encrypted ZIP folder and pass through to Requestor System via the State Hub SFTP Server.

- Alternatively, the interface shall determine instead to return a negative acknowledgment (NACK) back to Requestor System in the scenarios where the interface cannot process the submitted batch request file, scenarios such as when the batch request file fails validation.

- Finally, Requestor System shall be able to retrieve and delete the response from the Local Interface via SFTP.

Figure 1 - ADSEF Batch Participant Information Interface Enterprise Architecture illustrates a high-level view of the interaction between the Requestor System, the Local Interface, and ADSEF.

Figure 1 - ADSEF Batch Participant Information Interface Enterprise Architecture
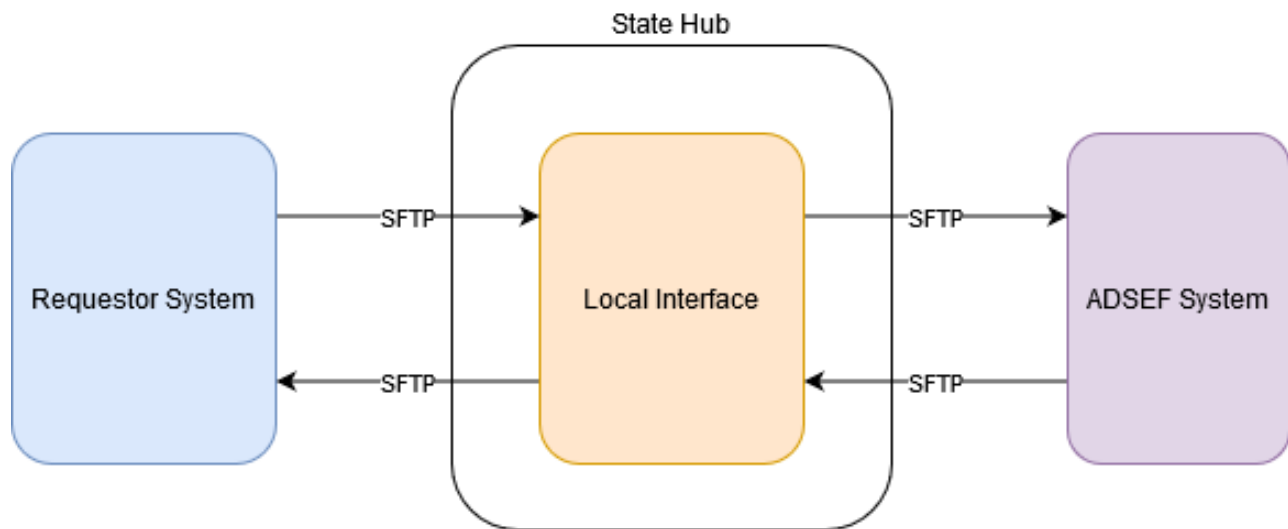
In Figure 1, the Requestor System is the entity in charge of initiating the batch request via SFTP with the Local Interface. The ADSEF System is the Local Agency system that the Local Interface shall interact with to request applicants/beneficiary's information. The Local Interface is hosted in the State Hub and shall validate the Requestor System requests, send the requests to ADSEF via SFTP, receive ADSEF responses via SFTP and deliver the responses back to the Requestor System via the State Hub SFTP Server.

4.2 Functional Allocation

The interaction between the Requestor System and the Local Interface is triggered when the Requestor System deposits the batch request file in the inbound folder. A mechanism shall be activated when a file is deposited. As a result of this trigger, the Local Interface shall commence the business operation to process the requests against the ADSEF System to gather the participant information. The process is compliant with the Patient Protection and Affordable Care Act of 2010, Section 1561.

The schema that the requests shall contain is detailed in section 5.1.5 Message Format (or Record Layout) and Required Protocols.

The business operation to process the requests against the ADSEF System to gather the participant information shall be affected if the process has reached the maximum response time. At this moment, the Local interface shall prepare and return a NACK to the Requestor System. Afterward, the Requestor System retrieves and reads the NACK response, Requestor System shall then opt to resubmit the batch request.

The interface shall monitor the request files left in the Inbound folder and if a batch request file is left in the Inbound folder for more than fourteen (14) days then a business process shall take place to remove the file. The High-Level Design Document for this interface shall further describe this business process in detail.

The interface shall monitor the response files left in the Outbound folder and if a response file is left in the Outbound folder for more than fourteen (14) days then a business process shall take place to remove the file.

4.3 Data Transfer

The Requestor System requests information from the ADSEF System through the State Hub by placing an encrypted ZIP file containing a manifest file and the requests in XML format for the agency in the established SFTP folder. The interface shall validate the XML files against the National Information Exchange Model (NIEM) standards. Authentication and authorization details for the SFTP folder are discussed in Section 4.5 Security and Integrity.

Table 5 - File Naming Convention for the State Hub ZIP Files describe the file naming conventions, attributes of the compressed ZIP file, and the folder name where the Requestor System shall place each request file to be processed against the ADSEF System.

The **FUNC** attribute for the ADSEF Batch Interface is **ADSEFBPII.**

Table 5 - File Naming Convention for the State Hub ZIP Files

SFTP Folder	Filename
Inbound folder **For Inbound (Requester to State Hub)**	SOURCEID.FUNC.DATE.TIME.ENV.IN e.g., MEDITI3G.ADSEFBPII.D191114.T065423325.T.IN.zip
Outbound (Response) Folder **For NACK (State Hub to Requester)**	SOURCEID.FUNC.DATE.TIME.ENV.OUT e.g., MEDITI3G.NAK.D191114.T065423325.T.OUT.zip
Outbound (Response) Folder **For Response (State Hub to Requester)**	SOURCEID.FUNC.DATE.TIME.ENV.OUT e.g., MEDITI3G.OUT.D191114.T065423325.T.OUT.zip

Table 6 - Description of the File Naming Standards for the State Hub SFTP File Naming Conventions defines the specific information for each attribute in the Inbound and Outbound State Hub SFTP ZIP filenames.

Table 6 - Description of the File Naming Standards for the State Hub SFTP File Naming Conventions

Attribute	Description
SourceID	The source identification is given to the Requestor to identify the State Hub request match file.
Func	The specific data function that is requested to the State Hub.
Date	The date of the file submitted is identified by the following format DYYMMDD.

Attribute	Description
Time	The timestamp of the file submitted is identified by the following format THHMMSSNNN (if milliseconds are not available, any three digits shall be used, as long as the resultant filename is unique)
Env	The environment in which the file is being submitted (P for Production Environment (PROD), T for non-PROD)
In	File extension mandated for files Inbound to EFT Note: This is only applicable for the Inbound folder.
Out	Transfer direction Note: This is only applicable for the Outbound folder.

Section 5.1.5.3 Field/Element Definition contains a description of the schema each XML file must contain to pass validations and be routed to the ADSEF System.

Figure 2 - Inbound ADSEF ZIP file with batch request illustrates a batch request in the designated Local Interface Inbound folder with one manifest and one ADSEF batch request file. The manifest file contains metadata information about the files within the ZIP file. See section 5.1.5.3 Field/Element Definition for more details.

Figure 2 - Inbound ADSEF ZIP file with batch request
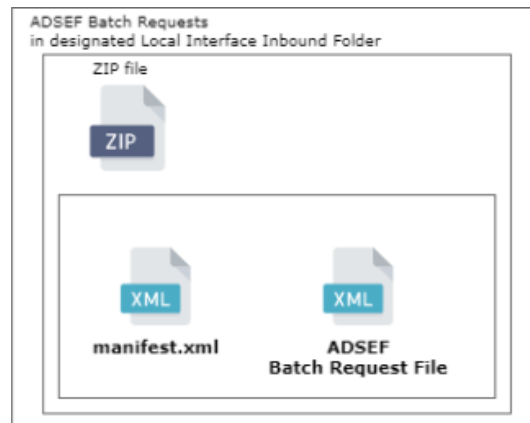
The interface shall request the information from ADSEF using the ADSEF Batch Request XML file passed via the established SFTP folder. The requests and the response(s) received from the ADSEF Local Agency are processed in XML format.

After the interface has received in XML format the response(s) from the ADSEF System, a response file and a manifest file are created in XML format following NIEM standards, the resulting files are compressed into a ZIP file and uploaded to the established SFTP folder for the Requestor System to download them.

Figure 3 - Outbound ADSEF ZIP file with responses illustrates a batch response in the designated Local Interface Outbound folder with one manifest and one ADSEF batch response file.

Figure 3 - Outbound ADSEF ZIP file with responses
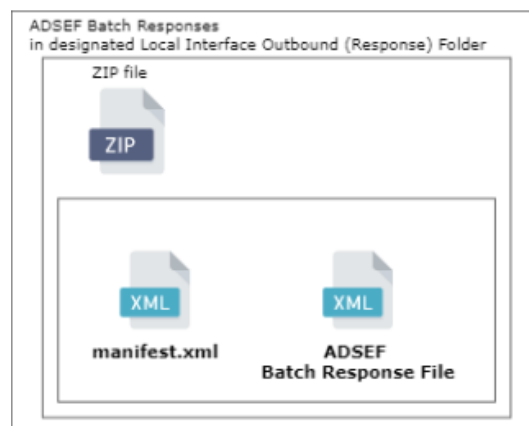
When a validation error of the whole batch request file has occurred at the TDS, the TDS shall create and return to the interface a NACK file containing information about the batch that generated the error and an error code to identify the type of error. The interface shall prepare and send a NACK file to the Requestor System.

Figure 4 - Outbound ADSEF Zip file with NACK illustrates a NACK in the designated Outbound folder with one manifest. A NACK only contains one manifest file within the ZIP file.

Figure 4 - Outbound ADSEF Zip file with NACK
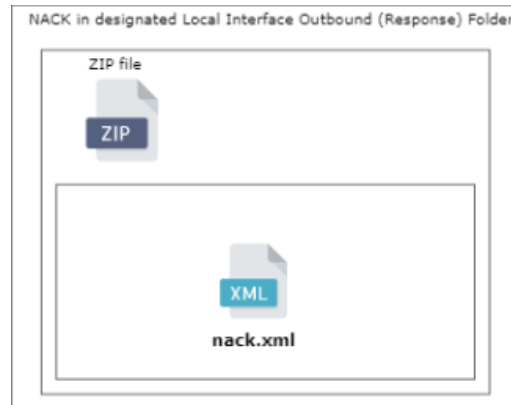
4.4 Transactions

The batch request file transaction between Requestor System and ADSEF System is described below:

Figure 5 - Transaction between MEDITI3G - Local Interface - ADSEF sequence
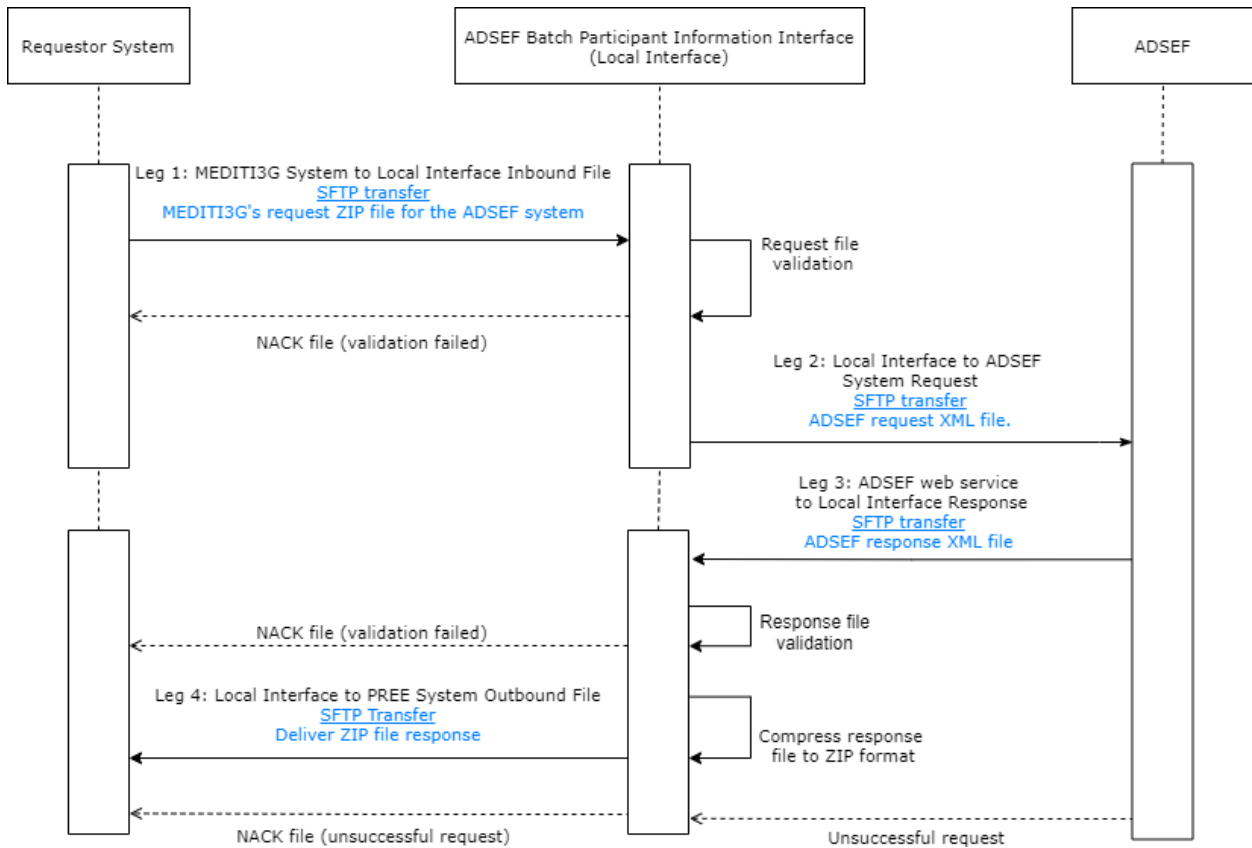
Leg 1: Requestor System to Local Interface Inbound File

- The ADSEF Batch Participant Information Interface shall receive the transaction. This transaction includes requests with personally identifiable information such as Full Name (First Name, Middle Name if available, and Paternal Last Name), SSN, and DOB.

Leg 2: Local Interface to ADSEF System Request

- The interface shall validate manifest metadata and an XML file following NIEM standards containing the request for the ADSEF System. The interface shall place the validated request received from Requestor System in the Local

Interface designated SFTP directory, where the ADSEF System shall pick up it. This transaction shall send the requests from Leg 1 to the ADSEF System.

Leg 3: ADSEF System to Local Interface Response

- The interface is responsible for receiving and validating the responses from the ADSEF System in XML format following NIEM standards. This transaction includes the responses from the ADSEF System containing personal identifiable information, PAN and TANF case information, and the reported income to the agency.

Leg 4: Local Interface to Requestor System Outbound File

- A manifest file is created for the response file. Both files are compressed in ZIP format. The final ZIP response file is delivered to the Requestor System via SFTP. This transaction shall take the responses from Leg 3 and deliver them to the Requestor System.

4.5 Security and Integrity

The State Hub SFTP server allows ADSEF System to connect through SFTP shared directories, obtain the request file, and return the ADSEF's requested data. The files shall be encrypted and decrypted using Pretty Good Privacy (PGP). State Hub shall encrypt the original request file using ADSEF's PGP public key, so only the agency can decrypt it using their private key and passphrase. Once ADSEF finishes processing the file and its ready to deliver responses, it shall encrypt the files using the State Hub's PGP public key, so only the State Hub can decrypt them.

5 Detailed Interface Requirements

The following section provides a detailed description of the interaction between the Requestor System and the ADSEF System through the Local Interface in the State Hub.

5.1 Requirements for ADSEF Batch Participant Information Interface

This ADSEF Batch Participant Information interface shall be used to transfer a match request file from the Requestor System to ADSEF and back. Full details on this end-

to-end process, the requirements that it shall meet, any assumptions that have been made, and constraints that have been identified are outlined in the below sections.

5.1.1 Assumptions

The following assumptions are considered for the design of this interface:

- The ADSEF Batch Participant Information Interface shall interact with ADSEF through the SFTP that resides in the State Hub, as agreed with the agency.

- The TDS shall return the batch responses to the ADSEF Batch Interface SFTP directory.

- The Local Agency shall validate the received requests and returned responses.

5.1.2 Constraints

The following constraints apply to the interactions between the Requestor System and the Local Interface:

- The Local Interface shall only perform matches based on the following combinations:

   o SSN

   o First Name and Last Name (paternal)

   o Date of Birth (DOB)

- The Local Agency shall only be available Monday thru Friday from 6:00 am to 8:00 am and from 4:30 pm thru 10:00 pm and shall only monitor every weekday at 6:00 am to check if there is any file pending for processing. If there is no file pending, file processing shall wait for the next business day at 6:00 am.

- The ADSEF System Operator shall manually download the batch request from the ADSEF Batch Participant Information Interface SFTP directory to process at once. Therefore, the constraint is dependent on the operator's availability to manually download the batch request.

- The Local Agency shall not be able to process and return the response in the same business day. At the earliest, it shall be processed, and the response returned during the next business day.

- The Local Interface shall perform searches based on the combination of SSN, Given Name (First Name and Last Name), and DOB. Since all fields are needed,

the ability to find a result with partially wrong information or miswritten values depends entirely on the matching algorithms of the Local Agency, if any.

5.1.3   General Processing Steps

Table 7 - ADSEF Batch Participant Information Interface Request Processing Steps details the processing steps that the interface completes monthly to process the requests from the Requestor System to the ADSEF Batch Participant Information Interface.

Table 7 - ADSEF Batch Participant Information Interface Request Processing Steps

Processing Step	Description	Responsible
1	• The Requestor System provides a request file to the State Hub with the ADSEF_REQ BatchCategoryCode. • The Requestor System deposits the PGP encrypted ZIP file containing the batch requests to its Inbound folder in the State Hub SFTP server.	Requestor System
2	• Decrypt the provided ZIP file. • Validate the manifest and request files. • Send the request file to the ADSEF Local Interface.	State Hub
3	• Encrypt the request file using ADSEF PGP public key. • Deposit the file in the ADSEF service provider Inbound folder in the State Hub SFTP server.	Local Interface

Table 8 - ADSEF Batch Participant Information Interface Response Processing Steps details the processing steps that the interface completes to process the response from the ADSEF System to the Requestor System.

Table 8 - ADSEF Batch Participant Information Interface Response Processing Steps

Processing Step	Description	Responsible
1	- Decrypt the request file. - Process the request file. - Encrypt the response file with the State Hub PGP public key. - Deposit the file in the ADSEF service provider Outbound folder in the State Hub SFTP server. See Table 9 - ADSEF Batch Participant Information Interface Response Processing Steps When the Maximum Response Time has Reached for an alternate scenario	ADSEF
2	- Decrypt the response file. - Complete the response file adding the missing requested participants with code 0050. - Validate the response by participants. If there is an invalid participant, it removes it and substitutes it with code 9999.	Local Interface
3	- Create a ZIP file with the response and the manifest. - Encrypt the ZIP file with the Requestor System PGP public key. - Deposit the encrypted file in the Requestor Outbound folder.	State Hub

Table 9 - ADSEF Batch Participant Information Interface Response Processing Steps When the Maximum Response Time has Reached details the processing steps that the interface completes when the maximum response time has reached without responses.

Table 9 - ADSEF Batch Participant Information Interface Response Processing Steps When the Maximum Response Time has Reached

Processing Step	Description	Responsible
1	The request file is not retrieved within the maximum response time (9 days), or the response is received after the maximum response time.	Local Agency
2	• Create a ZIP file with a timeout NACK response. • Encrypt the ZIP file with the Requestor System PGP public key. • Deposit the encrypted file in the Requestor Outbound folder.	State Hub

Table 10 - ADSEF Batch Participant Information Interface Processing Steps to Delete Inbound File That is 14 Days or Older details the processing steps that the interface completes to delete any file that is fourteen (14) days or older in the Inbound folder.

Table 10 - ADSEF Batch Participant Information Interface Processing Steps to Delete Inbound File That is 14 Days or Older

Processing Step	Description	Responsible
1	The State Hub Storage Account monitors the Inbound folder.	State Hub
2	Verify the date that the file was placed in the folder.	State Hub
3	Delete the file if it is fourteen (14) days or older.	State Hub

Table 11 - ADSEF Batch Participant Information Interface Processing Steps to Delete Outbound File That is 14 Days or Older details the processing steps that the interface completes to delete any file that is fourteen (14) days or older in the Outbound folder.

Table 11 - ADSEF Batch Participant Information Interface Processing Steps to Delete Outbound File That is 14 Days or Older

Processing Step	Description	Responsible
1	The State Hub Storage Account monitors the Outbound folder.	State Hub
2	Verify the date that the file was placed in the folder.	State Hub
3	Delete the file if it is fourteen (14) days or older.	State Hub

5.1.4   Interface Processing Time Requirements

The minimum response time of the batch file shall be within one (1) day with a maximum response time of nine (9) calendar days. This maximum response time considers that the number of compressed files queued for processing shall be one (1).

Table 12 - Results in cases where the maximum response time is exceeded defines cases where the response time exceeds the stated nine (9) calendar days, and consequently the maximum response time.

Table 12 - Results in cases where the maximum response time is exceeded

Cause for delay	Result
The ADSEF Batch Participant Information Interface has not received a response from the ADSEF System.	The Local Interface shall prepare and return a NACK to the Requestor System.

All the results in these cases shall be audited and presented in audit reports concerning exceeded response time.

5.1.5   Message Format (or Record Layout) and Required Protocols

The following section shall detail the format in which the Requestor System shall send participant batch requests to ADSEF and the ADSEF response to the Requestor System request.

5.1.5.1   File Layout

The ADSEF Batch request and response files are encrypted text files in XML format following NIEM standards. Each batch request file sent by the Requestor System shall follow the file format defined in section 5.1.5.3: Field/Element Definition.

5.1.5.2   Data Assembly Characteristics

The data that is processed in the interface is in XML format following NIEM standards version 2.0. The manifest file shall include detailed information about the batch transaction beings sent to the ADSEF. The manifest file contains information such as the number of files sent in the batch, the number of requests being made to ADSEF, the checksum of the files, and the name of the files within the ZIP file. The maximum file size limit for ADSEF request files inside the ZIP file is 262,144,000 bytes (250 megabytes). In terms of individual requests, a single 250 MB request file can hold up to three hundred thousand (300,000) individual requests.

The request file contains one or more individual requests to the ADSEF System with information about the participant that is going to be located. The request includes a batch identifier, a request identifier, the name of the participant, the date of birth, and the social security number. On the other hand, the response file created to the Requestor System includes one or more individual responses about the participant and the identifier for each request. Each participant's record returns the personal information stored, address(es), income reported, and data about the TANF and PAN case information. See section 5.1.5.3.3 *ADSEF File Data Elements and ResponseCode* for more details.

The NACK file shall inform of any file validation errors encountered in the process and the batch that failed the validation. If any request, attachment, or manifest file in the ZIP has a validation error, it shall also be specified in the file. The NACK shall also return any error found during schema validation as well as any error captured during the processing of the match request file against the ADSEF System.

The ADSEF Batch Participant Information Interface file layouts are defined in section 5.1.5.3: Field/Element Definition.

5.1.5.3 Field/Element Definition

The following section details the schema used between the Requestor System and the Local Interface to request participant information from the Local Agency. This section also provides details for errors encountered during the transactions and how the error is reported back to the Requestor System. Section 6 provides a sample schema and sample XML for the data elements in the following section.

5.1.5.3.1 Batch Service Request Manifest Data Elements, NACK Manifest ResponseCodes, and BatchCategoryCodes

The following section shall detail the manifest request schema by which the Requestor System shall send the batch request to the Local Agency, the NACK elements that shall be sent to the Requestor System if any error was encountered while validating the requests, and the error codes that shall be used to inform the Requestor System of the error encountered.

5.1.5.3.1.1 Request Manifest Data Elements

The Requestor System that sends batch data verification requests to the Local Interface shall populate the request manifest schema to describe the files the Requester is submitting to the State Hub. The name of the request manifest file is manifest.xml.

Figure 6 – High-Level Request Manifest UML illustrates the elements that the manifest request shall contain to submit the requests to the Local Interface. Detailed data elements are described in Table 13 - Request Manifest Schema: Requester to State Hub Inbound Batch File.

Figure 6 – High-Level Request Manifest UML

Request Manifest
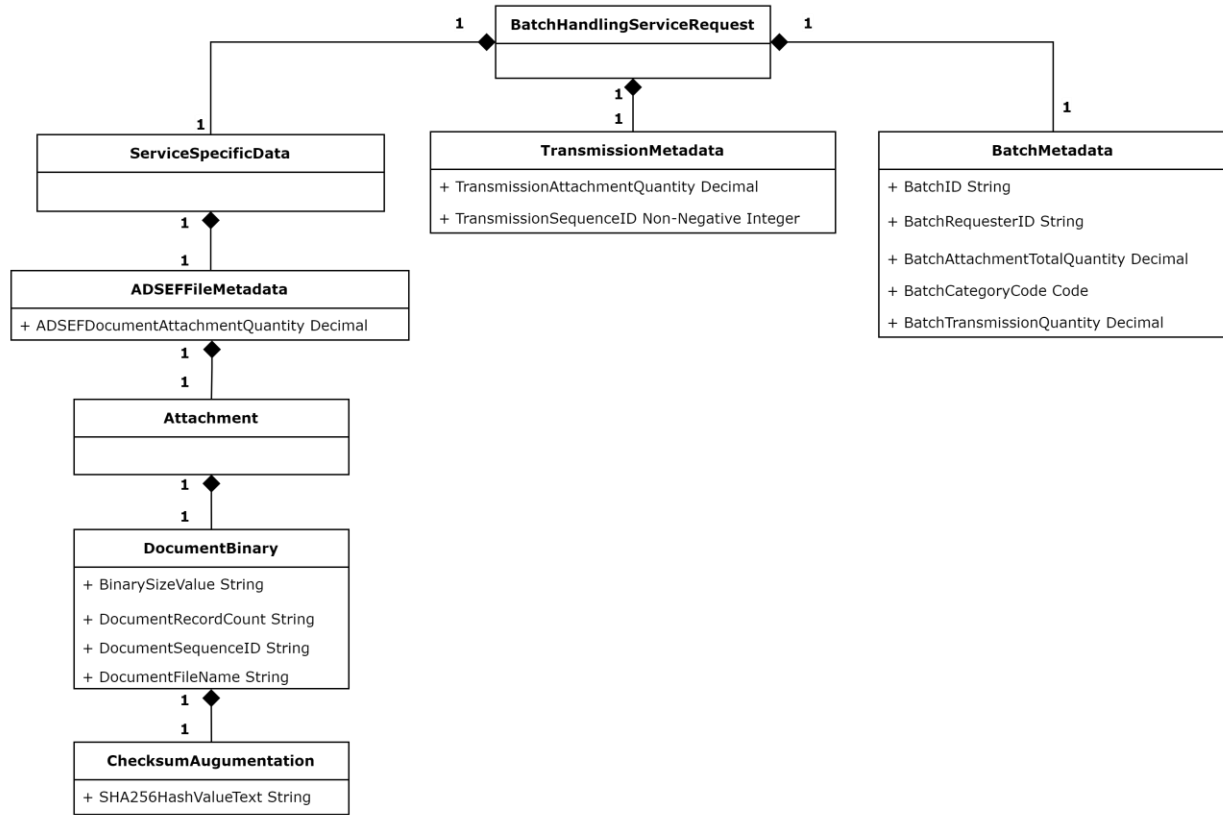
Table 13 - Request Manifest Schema: Requester to State Hub Inbound Batch File defines the data elements that the request manifest needs for a batch request to be submitted to the Local Interface. The following data elements define the attributes of the TDS-destined file the Requester needs to submit to the State Hub.

Table 13 - Request Manifest Schema: Requester to State Hub Inbound Batch File

Microsoft Excel
Worksheet

5.1.5.3.1.2 NACK Data Elements

Table 14 - NACK Data Elements: State Hub to Requester NACK file defines the data elements that the State Hub returns to the Requester when an error in validation or during the process was encountered. The detailed information of the errors that are sent in the NACK file is found in section **Error! Reference source not found.**: **Error! Reference source not found.**. The following data elements define the attributes of the NACK file that the State Hub returns to the Requester when an error has occurred.

Figure 7 – High-Level NACK Manifest UML illustrates the elements that the NACK response shall contain to receive the NACK from the Local Interface. Detailed data elements are described in Table 14 - NACK Data Elements: State Hub to Requester NACK file.

Figure 7 – High-Level NACK Manifest UML

Table 14 - NACK Data Elements: State Hub to Requester NACK file

Microsoft Excel
Worksheet

.
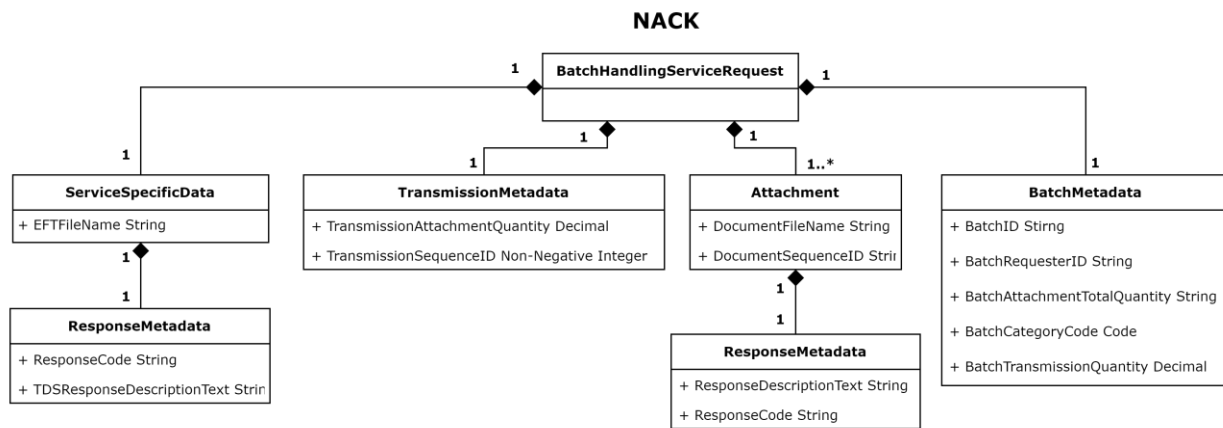
Table 15 - NACK Manifest Schema: State Hub to Requester NACK Manifest ResponseCodes

Microsoft Excel
Worksheet

5.1.5.3.1.3   NACK Batch Category Codes

Table 16 - NACK Manifest Schema: State Hub to Requester NACK Manifest Category Codes defines the NACK Manifest Category Codes that the State Hub returns to the Requester when an error in validation or during the process where encountered. The following data elements define the attributes of the NACK Manifest Category Codes that the State Hub returns to the Requester when an error has occurred.

Table 16 - NACK Manifest Schema: State Hub to Requester NACK Manifest Category Codes

Microsoft Excel
Worksheet

5.1.5.3.2   Batch Service Response Manifest Data Elements, ResponseCodes and BatchCategoryCodes

The following section shall detail the manifest response schema by which the Local Interface shall send the response to the Requestor System and the error codes that shall be used to inform the Requestor System of the error encountered.

5.1.5.3.2.1   Response Manifest Data Elements

The State Hub populates the response manifest schema to return responses from the TDS to Requesters. The response manifest filename is manifest.xml.

Figure 8 – High-Level Response Manifest UML illustrates the elements that the manifest response shall contain to receive the responses from the Local Interface. Detailed data elements are described in *Table 17 - Response Manifest Schema: State Hub to Requester File Response*.

Figure 8 – High-Level Response Manifest UML
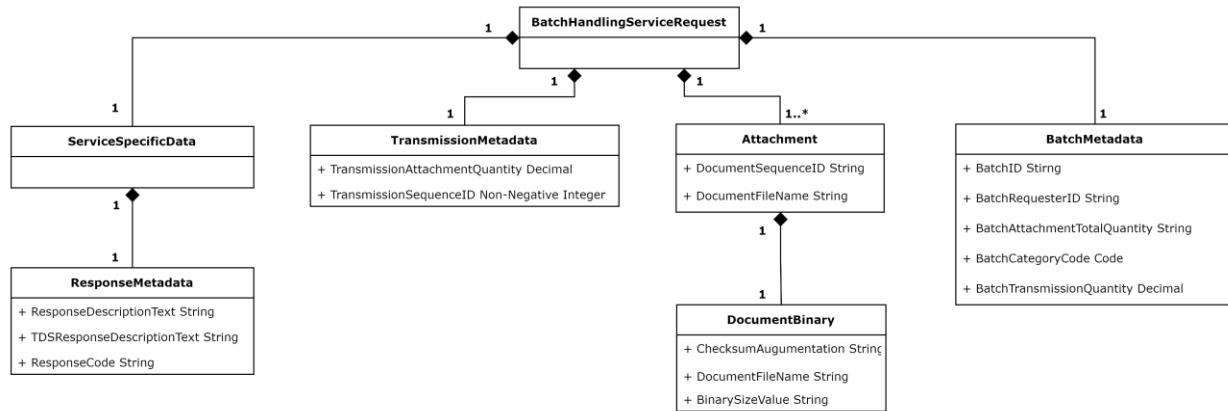
Table 17 - Response Manifest Schema: State Hub to Requester File Response defines the response data elements that the State hub needs to return to the Requester. The *following* data elements define the attributes of the file that the State hub return to the Requester.

Table 17 - Response Manifest Schema: State Hub to Requester File Response

Microsoft Excel
Worksheet

5.1.5.3.2.2 Response Manifest File-level ResponseCodes

Table 18 - Manifest Schema: State Hub to Requester ResponseCodes defines Manifest File response codes that the State Hub returns to the Requester. The following data

elements define the attributes of the Manifest ResponseCodes that the State Hub returns to the Requester when an error has occurred.

Table 18 - Manifest Schema: State Hub to Requester ResponseCodes

Table 18: Manifest Schema: State Hub to Requester ResponseCo

ResponseCode	ResponseDescriptionText	BatchCategoryCode
SHE005009	File Record Count Invalid Note: This response returns when the record count in the request manifest Schema does not match the actual record count within the ADSEF file. The Local Interface expects the Requester to correct the condition and resubmit the file with a new BatchID.	ADSEF_FILE_REJECTED _RESP
SHE005011	Unexpected Response Code Note: In these situations, the TDSResponseDescriptionText field describes the condition; the code the State Hub returns appends to the ResponseDescriptionText.	ADSEF_FILE_REJECTED _RESP
SHS000000	Success	ADSEF_RESP Note: Record level errors shall exist within the file responses; however, since the TDS data is used to produce a file for the State Hub to return to the Requester, the result is Success. Note: ADSEF request and response record counts always match.
SHX005502	Unexpected System Exception Note: This condition can occur for an ADSEF file containing null or spaces in required fields. The Local Interface expects the Requester to correct the condition and resubmit the file with a new BatchID.	ADSEF_FILE_REJECTED _RESP
SHX005507	File validation error at TDS.	ADSEF_FILE_REJECTED _RESP
SHX003001	Unexpected Exception Occurred at Trusted Data Source Note: This condition can occur for an ADSEF file containing disallowed XML 1.0 characters or if the file is not prettyprinted (properly formatted) XML 1.0. The Local Interface expects the Requester to correct the condition and resubmit the file with a new BatchID.	ADSEF_FILE_REJECTED _RESP

5.1.5.3.2.2   Response Manifest BatchCategoryCodes

Table 19 - Manifest Schema: State Hub to Requester BatchCategoryCodes defines Manifest File BatchCategoryCodes that the State Hub returns to the Requester. The following data elements define the attributes of the Manifest BatchCategoryCodes that the State Hub returns to the Requester when an error has occurred.

Table 19 - Manifest Schema: State Hub to Requester BatchCategoryCodes

Microsoft Excel
Worksheet

5.1.5.3.3   ADSEF File Data Elements and ResponseCode

The following section details the request schema that shall be used to send the requests to the ADSEF System and the response schema that shall be used to send the responses back to the Requestor System.

5.1.5.3.3.1   ADSEF Request Data Elements

Figure 9 – High-Level ADSEF Request UML illustrates the elements that the ADSEF request shall contain to submit the requests to the Local Interface. Detailed data elements are described in   Table 20 - Request Data Elements: ADSEF Batch Participant Information Interface to ADSEF System File Request.

Figure 9 – High-Level ADSEF Request UML
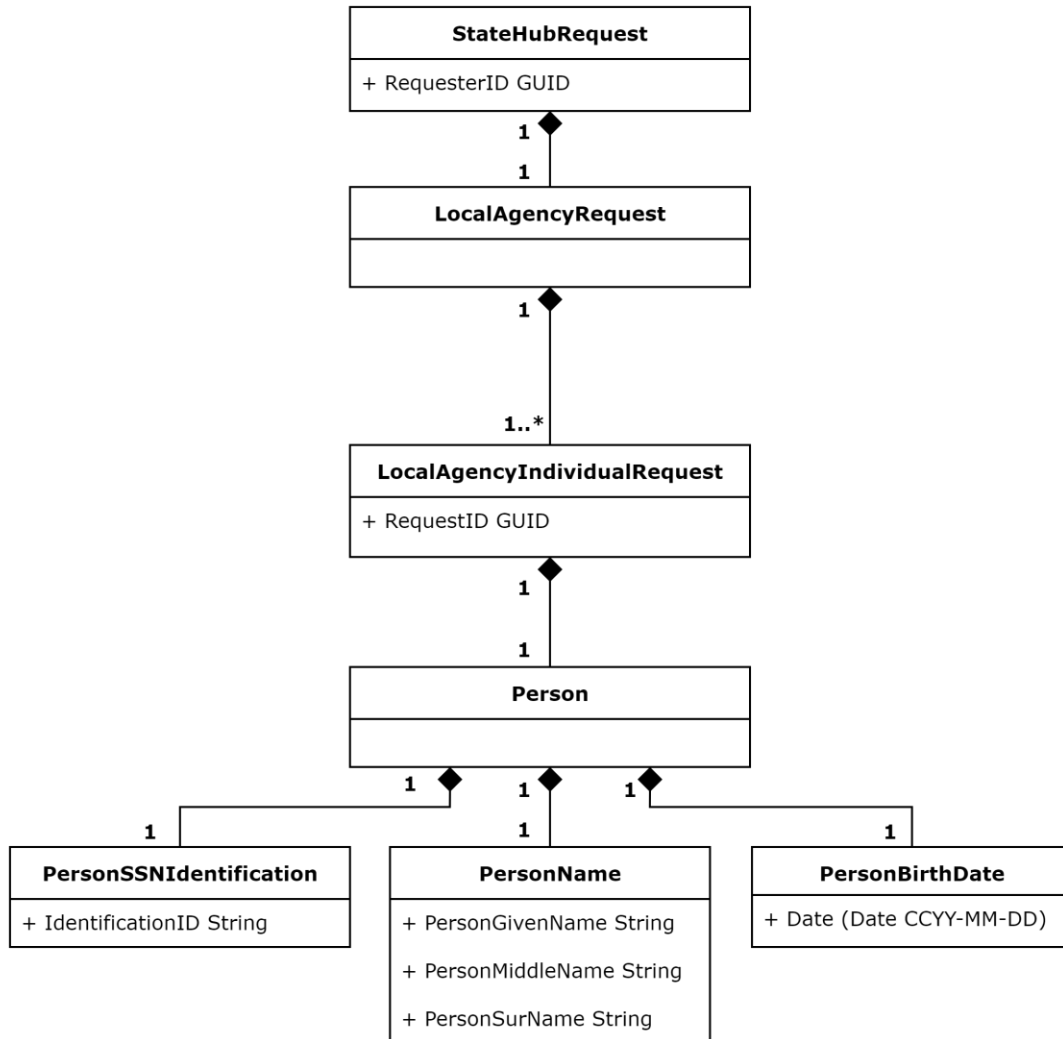
Table 20 - Request Data Elements: ADSEF Batch Participant Information Interface to ADSEF System File Request defines the request data elements that the ADSEF Batch Participant Information Interface needs to be submitted to the ADSEF System. The following data elements define the attributes of the TDS-destined file that the ADSEF Batch Participant Information Interface needs to submit to the ADSEF System.

Table 20 - Request Data Elements: ADSEF Batch Participant Information Interface to ADSEF System File Request

Microsoft Excel
Worksheet

5.1.5.3.3.2   ADSEF Response Data Elements

Figure 10 – High-Level ADSEF Response UML illustrates the elements that the ADSEF response shall contain to receive the responses from the Local Interface. Detailed data elements are described in

Table 21 - Response Data Elements: ADSEF System to ADSEF Batch Interface File *Response*.

Figure 10 – High-Level ADSEF Response UML
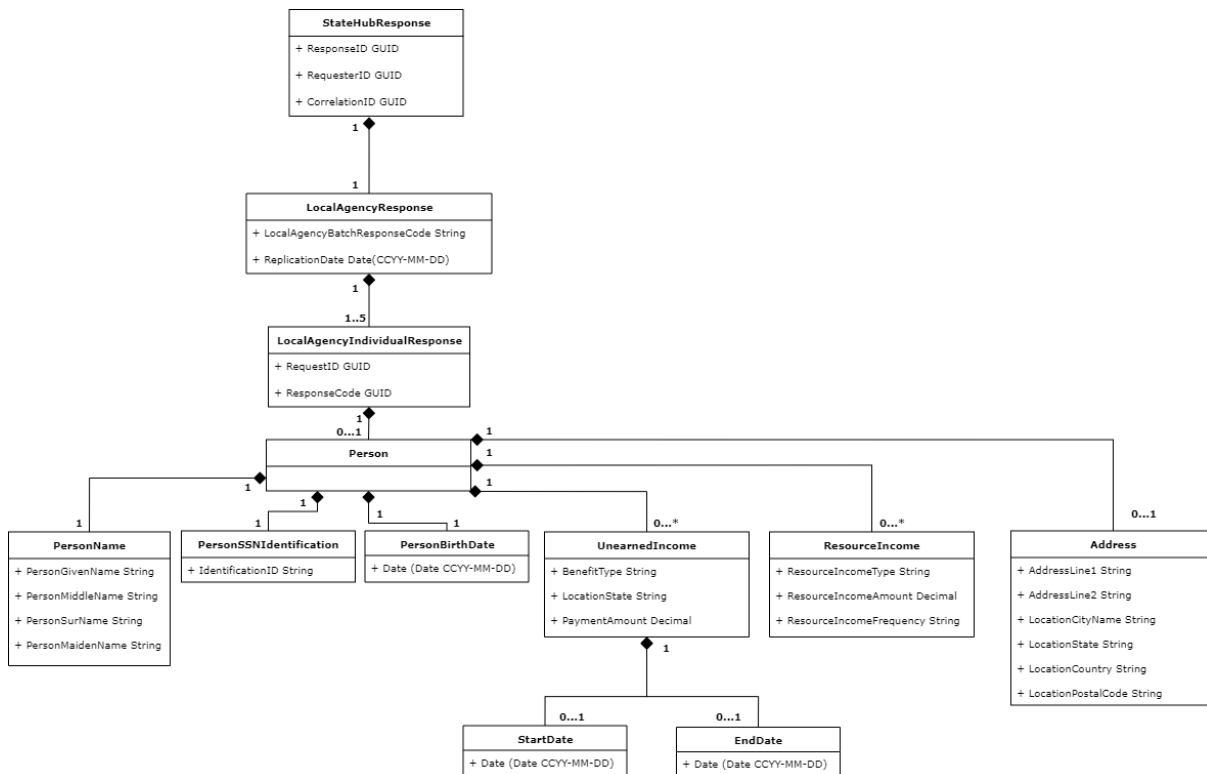
Table 21 - Response Data Elements: ADSEF System to ADSEF Batch Interface File Response defines the TDS response data elements that the ADSEF System needs to return to the ADSEF Batch Interface. The following data elements define the attributes of the TDS file that the ADSEF System needs to return to the ADSEF Batch Interface.

Table 21 - Response Data Elements: ADSEF System to ADSEF Batch Interface File Response

Microsoft Excel
Worksheet

5.1.5.3.3.3   ADSEF ResponseCode

Table 22 - ResponseCode: ADSEF System LocalAgencyBatchResponseCode defines the TDS LocalAgencyResponseCode that the ADSEF System needs to return to the ADSEF Batch Participant Information Interface.

Table 22 - ResponseCode: ADSEF System LocalAgencyBatchResponseCode

Table22: ResponseCode: ADSEF System LocalAgencyBatchR...

LocalAgencyBatchResponseCod	Description	Note
9999	Unsuccessful	If the LocalAgencyBatchResponseCode is 9999, no data is returned on the response record. This error is intended when no other code exists to describe an error.
0000	Successful	Success request.
		See ADSEFResponse/ADSEFVerificationCode in Table 18 - Manifest Schema: State Hub to Requester ResponseCodes.
0001	More than one record found.	The lookup found more than one match. The interface just supports one return for each participant information request.
0002	Record not found.	The lookup does not find a match with the participant information provided in the request.
0005	Unable to process this request due to an exception in parsing your XML message.	The process shall not complete because an exception occurs trying to parse the XML.

Note: Request file validation error at the TDS. |
| **0006** | Unable to process request because of an internal system error. | The process could not complete because an error occurs internally.

A transaction with this error is retriable. |
| | | |

Table 23 - ResponseCode: ADSEF System LocalAgencyIndividualResponse/ResponseCode defines the TDS LocalAgencyResponseCode that the ADSEF System needs to return to the ADSEF Batch Participant Information Interface for each segmented batch.

Table 23 - ResponseCode: ADSEF System LocalAgencyIndividualResponse/ResponseCode

Microsoft Excel
Worksheet

5.1.6 Communication Methods

The following subsections outline the communication requirements for all aspects of the communication stack to which the systems participating in the interface shall conform.

Communication shall be divided into three ways:

- Bi-directionally between the Requestor System and the State Hub
- Within the Local Interface
- Bi-directionally between the Local Interface and TDS.

The Requestor System and the State Hub shall perform connections using an SSH-2 SFTP connection with RSA keys. Inbound connections shall only be able to read and write in a very specific file directory, while outbound connections shall only read files from a different file directory. Packages sent through these connections are limited to request data files, response data files, and NACK XML files. See section 4.3 Data Transfer for detailed information on the folder structure and the composition of the ZIP files.

Within the Local Interface, the components shall communicate with each other using HTTPS requests and responses using REST and exchanging XML. The Local Interface shall also communicate with the SFTP to obtain and deposit request files and deposit response files using encryption in compliance with MARS-E.

ADSEF shall retrieve the request from the State Hub SFTP folder using SSH-2 SFTP connection with RSA keys. The packages being exchanged shall be XML for both the request and the response ADSEF System shall use SSH-2 RSA keys deposit response(s) into the State Hub SFTP folder, the same way as how establishes connections to the SFTP for retrieving the requests.

For exchange timing requirements, see section 5.1.4: Interface Processing Time Requirements.

5.1.6.1 Interface Initiation

The Local Interface monitors the Inbound Folder by running a mechanism that shall be triggered when a new ZIP file has been deposited in the SFTP, the interface performs different validations to determine if the batch shall continue the workflow on the deposited files.

The connection to the SFTP server is through the SSH-2. The Requestor System shall provide the correct public key to be able to submit the file and initiate the interface execution.

5.1.6.2 Flow Control

A high-level interaction between the Requestor System-Local Interface-ADSEF can be seen in Figure 11 - ADSEF Batch Participant Information Interface Process Flow.

Figure 11 - ADSEF Batch Participant Information Interface Process Flow
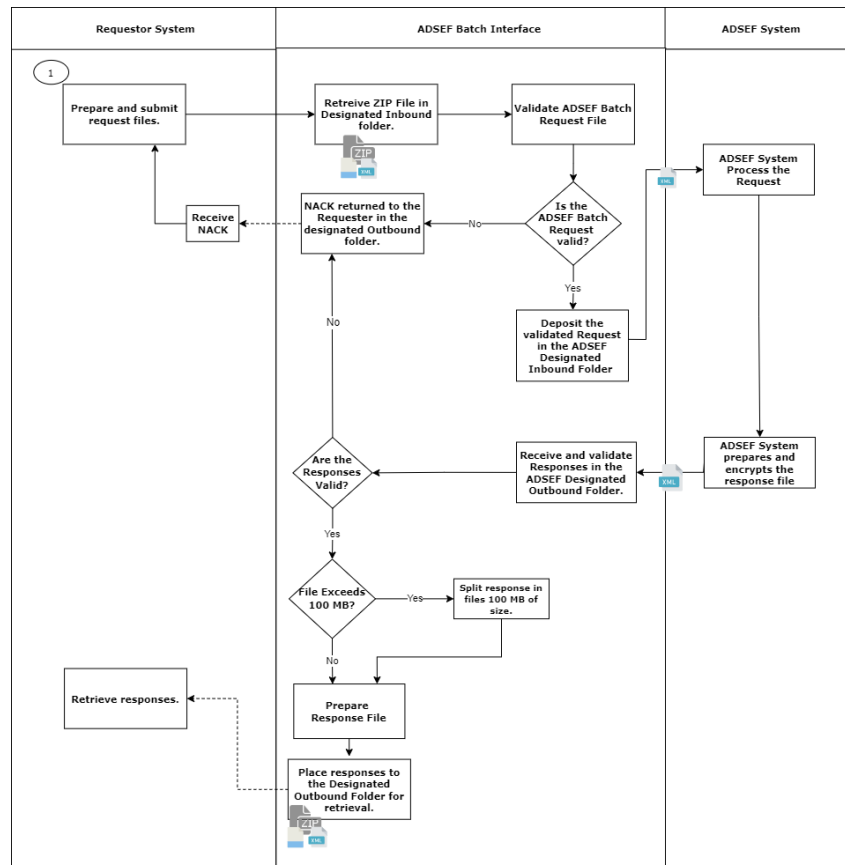
The information regarding the NACK messages sent from the interface to the Requestor System can be found in sections **Error! Reference source not found.**: **Error! Reference source not found.,** 5.1.5.3.2.2 Response Manifest File-level ResponseCodes, and 0: ADSEF ResponseCode.

5.1.7   Security Requirements

All encryptions shall be done using 256-bit AES. This shall enforce HIPAA, HITECH 2009, FIPS 140-2 requirements as well as MARS-E requirements. Encryption shall be applied to requests, responses, and any data that is processed within the Local Interface and forwarded to ADSEF or the Requestor System. Operations performed by the Local Interface shall go through a three (3) step process:

1. Decryption
2. Processing

3. Encryption

In other words: for every step of execution within the Local Interface, encryption shall always be managed with these three (3) steps to maintain encryption throughout all functionalities.

Data processed by the Local Interface shall also remain encrypted during interface functionality using HTTPS inside the virtual machines and cloud services layer of Azure Government's security model, which is its deepest layer. This data shall never be persisted in any way and shall only be accessible through memory so that it disappears from the State Hub and the Local Interface after any operation performed on it has been completed. Any reference to an operation in our reporting functionality and auditing functionality shall have no direct or indirect mention of the contents of the data that was processed when an alert or audit was performed. References to data values shall never be referenced in logging functionality which shall be limited to data fields or types only when it is necessary to reference them.

The data identified as PII in Section 5.1.5.3.3.1: ADSEF Request Data Elements and 5.1.5.3.3.2:ADSEF Response Data Elements, shall only be accessed by the person with the State Hub Administrator role within the State Hub. The State Hub Administrator role possesses the permission to delete but not read a file, this means that if an issue arises, the State Hub Administrator is the person responsible to address the issue.

6 XML Schemas

This section provides schemas and examples for the schemas used to communicate the Requestor System with the ADSEF System through the Local Interface.

6.1 Request and Response Manifest Schemas

Figure 12 - ADSEF Request and Response Manifest Schema contains the ADSEF Batch Participant Information manifest XML Schemas for submitting and receiving files. The samples in each ZIP file display examples of manifest schemas. Sections 5.1.5.3.1.1 – Request Manifest and 5.1.5.3.2.1 – Response Manifest provides detailed information on these schemas.

Figure 12 - ADSEF Request and Response Manifest Schema

ADSEF Request and
Response Manifest Sc

Note: The sample response manifest Schema is used for NACKS and Responses; therefore, the sample gives a depiction of all populated fields but not a true depiction of an actual scenario. See Section 4.3 Data Transfer for scenario depictions.

6.2 ADSEF Request and Response Schemas

Figure 13 - ADSEF Request and Response File Schema contains the XML Schemas that the Requestor System shall use to communicate with the interface and the responses that shall be sent back. Additionally, this schema is used to communicate with the ADSEF System Stored Procedure that the Local Interface interacts with. Section 5.1.5.3.3 provides detailed information on the ADSEF request and response.

Figure 13 - ADSEF Request and Response File Schema

ADSEF Batch
Interface Request ar
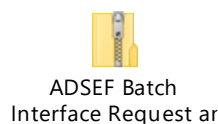
Note: The sample used for the ADSEF Request and Responses gives a depiction of all populated fields but not a true depiction of an actual scenario.

7 Qualification Methods

This ADSEF Batch Participant Information ICD represents the delivery outcome of the evidence validation and interface analysis that has been gathered. Input from Puerto Rico Medicaid Program Subject Matter Experts and ADSEF staff was collected during ADSEF Batch JAD sessions and has been considered for this document as well. The qualification methods are aligned to the State Hub qualification methods, to see in detail refer to the Section 5 Release Management in the State Hub HLD.

8 Related Documents

This section describes documents that support or are directly related to this document. See Table 24 - Related Documents.

Table 24 - Related Documents

Document	Reference
PREE Requirements and Definitions: Local Agency Interfaces Requirements (ASUME, ADSEF, Demographic Registry, DRNA)	https://intervoicepr.sharepoint.com/:f:/r/EnE_P-APDU/Deliverables%20Library/Deliverable%2015-%20Requirements%20and%20Definitions%20Document%20for%204%20Local%20Government%20Agencies%20Delivery?d=w01cde885bbb34d2ab08b7f310cc78dd1&csf=1
PREE Requirements and Definitions: State Data Verification Hub Requirements	https://intervoicepr.sharepoint.com/EnE_P-APDU/_layouts/15/Doc.aspx?sourcedoc=%7BF165A982-4031-4AA4-996F-B2423C7BD5A3%7D&file=PREE_StateHub_Requirements_and_Definitions_v1.0.docx&action=default&mobileredirect=true&DefaultItemOpen=1
System Security Plan Document (SSP).	https://intervoicepr.sharepoint.com/:f:/r/EnE_P-APDU/PREE Mediti3G Audit/Working folders/Wovenware Documents?csf=1&web=1&e=jo5u5i

Document	Reference
PREE State Hub High Level Document	https://intervoicepr.sharepoint.com/:f:/r/EnE_P-APDU/Deliverables%20Library/WW_Deliverable%20204_HLD%20-%20State%20Data%20Verification%20Hub%20(NEW%20ARCHITECTURE)?d=wbe9e7869017d464aac340ebbd2bf35d7&csf=1&web=1
ADSEF Specification Document	https://intervoicepr.sharepoint.com/:w:/r/EnE_P-APDU/Deliverables%20Library/WW_Deliverable%20140-ADSEF%20Participant%20Information%20Local%20Agency%20Software%20Specification%20Document/Deliverable%20140-ADSEF%20Participant%20Information%20Local%20Agency%20Software%20Specification%20Document.docx?d=w5a561516aaba420aac2be7b20ed78af3&csf=1&web=1

9 Requirements Matrix

For requirement traceability purposes, the following requirements are met and mapped to this design document.

Table 25 - Functional Requirements

Item #	ID	Requirement	Fit-Gap	Implementation Details
1	IR-GR-F-001	The real-time and batch local interfaces shall be hosted in the cloud as services.	Fit	
2	IR-GR-F-003	The batch local interfaces shall receive batch requests from the MEDITI3G System and route them to their corresponding local agency.	Fit	
3	IR-GR-F-005	The batch local interfaces shall deliver batch responses from their	Fit	

Item #	ID	Requirement	Fit-Gap	Implementation Details
		corresponding local agency to the MEDITI3G System.		
4	IR-GR-F-008	The batch local interfaces shall be able to accept one or more batch files for processing.	Fit	
5	IR-GR-F-009	The batch local interfaces shall send NACKS when a request was not processed due to a validation error, whether NIEM validation error, checksum validation error, or otherwise.	Fit	
6	IR-GR-F-010	The batch local interface shall return a response if the max agreed upon response time is exceeded. The response shall either be a NACK if the whole response file has yet to be processed, or a response batch file with individual responses based on batch processing completed against the agency at that time.	Fit	
7	IR-GR-F-011	The real-time and batch local interfaces shall be uniquely identifiable from within the State Hub such that audit trails, log files, reporting services and other transactions can be quickly identified per local interface by the administrator user and auditor user when performing administrative tasks from the cloud portal.	Fit	
8	IR-GR-F-012	The real-time and batch local interfaces shall process all PII in transit and shall not retain any PII after the processing is completed.	Fit	
9	IR-GR-F-013	The batch local interfaces shall allow partial responses for batch transactions.	Fit	
10	IR-GR-F-015	The real-time and batch local interfaces shall support transporting	Fit	

Item #	ID	Requirement	Fit-Gap	Implementation Details
		inbound and outbound data to the MEDITI3G System adhering to the NIEM standard.		
11	IR-GR-F-016	The real-time and batch local interfaces shall send PII as search criteria to locate the person/participant at the local agency.	Fit	
12	IR-GR-F-017	The real-time and batch local interfaces shall be capable of receiving a response from their respective local agency with the participant information pre-defined data elements.	Fit	
13	IR-GR-F-018	The batch local interface shall allow MEDITI3G System to submit a batch request file for querying the local agency System for Participant(s) Information, to be returned within one or more response files.	Fit	
14	IR-GR-F-020	The batch local interface request file shall contain a batch set of individual participant requests, each request containing participants' PII search criteria.	Fit	
15	IR-AR-F-002	The batch local interfaces shall log events resulting from requests received from the MEDITI3G System through the State Hub and the response from their corresponding local agency. At a minimum, events that will be logged are: 1. Batch file received for batch transactions. 2. Size of the batch ZIP file in KB, MB, or GB 3. Size of the batch file's XML document in KB, MB, or GB 4. File validation results. a. Requester ID captured	Fit	

Item #	ID	Requirement	Fit-Gap	Implementation Details

		5. Request transformation results (optional).
		6. Result of connectivity attempt to the local agency.
		   a. Connection was established to the local agency (timestamp).
		   b. Connection timeout between interface and local agency.
		7. Agency query results
		   a. Error code
		8. Response transformation results (optional)
		9. Transaction completed after transmitting data to the local agency.
		   a. Correlation ID captured.
		10. File placed for pick-up.
		11. File picked up.
		12. File auto-removed.		

16	IR-AR-F-003	The real-time and batch local interfaces shall log error codes accompanied by an unvarying, standard description that defines what the error code means when an exception occurs.	Gap	Further details will be provided in the Design Document.
17	IR-AR-F-004	The real-time and batch local interfaces shall relay audit trails related to warnings and errors to the State Hub using a normalized coding structure so that they are easily identifiable for auditing and troubleshooting purposes.	Gap	Further details will be provided in the Design Document.
18	IR-AR-F-005	The real-time and batch local interfaces shall not store PII in audit trails.	Fit	
19	IR-AR-F-006	The real-time and batch local interfaces shall capture non-personal identifying invalid data in the communication (request and response) to help with troubleshooting.	Fit	

Item #	ID	Requirement	Fit-Gap	Implementation Details
20	IR-SR-F-001	The real-time and batch local interfaces shall ensure that if a failure occurs, no sensitive information, such as PII is vulnerable to external attacks via interface responses or captured audit trail.	Fit	
21	IR-SR-F-002	The real-time and batch local interfaces shall keep data encrypted during transit as originated from the MEDITI3G System and the Local Agency.	Fit	
22	IR-SR-F-003	The real-time and batch local interfaces shall establish a secure connection with the MEDITI3G System and the Local Agency.	Fit	
23	IR-SR-F-004	The batch local interfaces shall keep data encrypted at rest while the transaction is being processed.	Fit	
24	IR-SR-F-005	The batch local interfaces shall permanently remove all batch files after the request has been processed and the response has been sent to the MEDITI3G System.	Fit	
25	IR-SR-F-006	The real-time and batch local interfaces shall comply with the security guidelines and recommendations established in the Patient Protection and Affordable Care Act of 2010, Section 1561.	Fit	
26	IR-SR-F-007	The real-time and batch local interfaces shall comply with the security requirements established by HITECH 2009.	Fit	
27	IR-SR-F-008	The real-time and batch local interfaces shall restrict access to appropriately authenticated systems (for example, MEDITI3G System and Local Agencies' Systems).	Fit	

Item #	ID	Requirement	Fit-Gap	Implementation Details
28	IR-SR-F-009	The real-time and batch local interfaces shall restrict access to appropriately authenticated users (for example, administrator and auditor).	Fit	
29	IR-SR-F-010	The real-time and batch local interfaces shall allow an administrator, without granting read access, to delete an in-transit file (stuck in-transit).	Fit	
30	IR-SR-F-011	The batch local interfaces shall securely purge (delete) any file that reaches or surpasses the predefined time for processing.	Fit	
31	IR-GR-F-AD-001	ADSEF real-time and batch local interfaces shall provide the data elements in requirement "IR-GR-NF-AD-001" upon request, whether by real-time or batch.	Fit	
32	IR-GR-F-AD-003	ADSEF batch local interface shall validate batch files submitted by MEDITI3G System for message format compliance and integrity.	Fit	
33	IR-GR-F-AD-004	The real-time and batch local interfaces shall support the ability to retry a transaction, without manual intervention, after the local agency becomes unavailable mid-transaction.	Gap	Further details will be provided in the Design Document.

Table 26 - Non-Functional Requirements

Item #	ID	Requirement	Fit-Gap	Implementation Details
1	IR-GR-NF-004	The batch local interfaces shall process batch uncompressed XML files that do not exceed two hundred and fifty (250) Megabytes (MB).	Fit	

Item #	ID	Requirement	Fit-Gap	Implementation Details
2	IR-GR-NF-005	The batch local interfaces shall be able to process up to one (1) request file at a time.	Fit	
3	IR-GR-NF-006	The batch local interface shall expose an SFTP directory so that MEDITI3G System shall submit batch requests files for batch querying.	Fit	
4	IR-GR-NF-007	The batch local interface shall expose an SFTP directory so that MEDITI3G System shall pick up any batch response files destined for MEDITI3G System.	Fit	
5	IR-GR-NF-008	The batch local interfaces shall permanently remove in-transit files that have not been used within fourteen (14) calendar days.	Fit	
6	IR-GR-NF-009	The real-time and batch local interfaces shall comply with HIPAA and MARS-E regulations to guarantee data encryption, protection, portability, and integrity.	Fit	
7	IR-GR-NF-012	The batch interfaces shall support Application-to-Application asynchronous behavior for batch requests.	Fit	
8	IR-LR-NF-001	The real-time and batch local interfaces shall generate alerts and notifications through the State Hub using monitoring capabilities.	Gap	Further details will be provided in the Design Document.
9	IR-MR-NF-001	The real-time and batch local interfaces shall capture metrics on the availability of the service provider (local agency). The metric shall compliment the State Hub's service provide monitoring capabilities.	Gap	Further details will be provided in the Design Document.
10	IR-SR-NF-001	The real-time and batch local interfaces that support Secure Socket	Fit	

Item #	ID	Requirement	Fit-Gap	Implementation Details
		Layer (SSL) connections shall be supported by public key/private key encryption SSL certificates capable of 256-bit encryption or stronger.		
11	IR-SR-NF-002	The security configurations and conditions that the real-time and batch local interfaces are required to implement in a production environment shall be the same configurations and conditions implemented in all development, testing, integration, and acceptance test environments to guarantee compliance with the security measures in the MARS-E for protecting PII.	Fit	
12	IR-SR-NF-003	The real-time and batch local interfaces development and development tests shall not use real data for development or testing environments.	Fit	
13	IR-SR-NF-004	The batch local interfaces shall perform source to destination file integrity checks for the exchange of data to ensure no corrupted data reaches to or is extracted from the local agency.	Fit	
14	IR-GR-NF-AD-001	The real-time and batch local interfaces shall be capable of receiving a response from ADSEF with the following participant information data elements: a. Address b. Unearned Income c. Resource Income	Fit	
15	IR-GR-NF-AD-002	The ADSEF batch local interfaces shall have a maximum response time of nine (9) days.	Fit	

10 Issue Register

This section shall capture the identified issues that caused a change to the Local Interface.

Table 27 - Issue Register

Issue #	Issue	Resolution	Resolution Date
None Identified at this moment			

11 Appendix A - ADSEF Connectivity and Maintenance Arrangement

The following section provides a summary of the plan that Wovenware has been able to arrange with ADSEF for this Local Interface:

1. There shall be a signed Memorandum of Understanding (MOU) agreement in place with ADSEF to allow the sharing of ADSEF System information.

2. The Local Agency shall have maintenance windows at least one or two times a month during the weekends.

3. The Local Agency shall locate the participant based on the combination given of SSN, Full Name, and DOB.

4. The Local Agency shall be available Monday thru Friday from 6:00 am to 8:00 am and from 4:30 pm thru 10:00 pm and shall monitor every weekday at 6:00 am to check if there is any file pending for processing.

5. The ADSEF System Operator shall manually download the batch request from the ADSEF Batch Participant Information Interface SFTP directory to process at once.

6. The Local Agency shall process and return the response in the next business day.

7. The Local Agency shall promptly notify PRDoH of any maintenance window not previously scheduled or agreed upon.

8. The ADSEF Batch Participant Information Interface shall interact with ADSEF through the SFTP that resides in the State Hub, as agreed with the agency.

9. The Local Agency shall return the batch responses to the ADSEF Batch Interface SFTP directory.

10. The Local Agency shall validate the received requests and returned responses.

12 Appendix B – ADSEF Benefit Type Table

The following table lists all the possible Benefit Types that a participant shall have.

Note: This list represents the current benefits provided by ADSEF. As expected, the agency may add new benefits as part of its daily operations. These new benefits will also be returned as part of the response, so the Requestor System should be prepared to receive any value not listed above.

Table 28 – ADSEF Benefit Types

Service	Description
AE-A	TANF-CAT.A
AE-B	TANF-CAT.B
AE-C	TANF-CAT.C
AE-D	TANF-CAT.D
AE-G	TANF-CAT.G
AE-T	TANF-CAT.T
LICE1	CRISIS DE ENERGIA / ATRASO O RECONEXION DE LUZ
LICE2	CRISIS DE ENERGIA / COMPRA DE GAS
LICE3	CRISIS DE ENERGIA/COMPRA DE ACONDICIONADOR DE AIRE ELECTRICO
LICE4	CRISIS DE ENERGIA / COMPRA DE ABANICO ELECTRICO
LICE5	CRISIS DE ENERGIA / REPARACION DE ACONDICIONADOR DE AIRE
LISE	SUBSIDIO DE ENERGIA
PAN	ASIST. NUTRIC.
PANED	PAN - EMERG. - DESASTRE
TANFE	PAGOS SOSTENEDORES (EMERGENCIAS)
TANFS	PAGOS SOSTENEDORES
TFP-C	DISTRIBUCION DE ALIMENTOS COMUNIDAD
TFP-R	DISTRIBUCION DE ALIMENTOS RESIDENCIAL
TFP-T	DISTRIBUCION DE ALIMENTOS TANF

13 Appendix C – ADSEF Resource Income Types Table

The following table lists all the possible Resource Income Types that a participant shall have.

Note: This list represents the current Resource Income Types provided by ADSEF. As expected, the agency may add new types as part of its daily operations. These new Resource Income Types will also be returned as part of the response, so the Requestor System should be prepared to receive any value not listed above.

Table 29 – ADSEF Income Resource Types

Income	Description
ABUE	ABUELOS ADOPTIVOS
ACBO	ACCIONES_BONOS
ACCA	ADM.COMP.ACC.AUT.
ACGA	ACC.GARANT.PREST
ACUA	ING.ACUACULTURA
ADDT	ADM.DER.TRAB.
ADIE	ADIESTRAMIENTO
ADOP	PAGO PADRE ADOP.G.MEN
AEFS	AYUDA FUND. SIDA
AESU	PAGOS/AE/SUST./DSS
AGRB	ING.BRUTO AGRICULTURA
AGRN	ING.NPRO.AGRICULTURA O
AHOR	CUENTAS DE AHORRO
ANUA	ANUALIDADES
ARET	DIN. RET. ASISTENCIA
AVIS	ACCION VISTA
AYUD	AYUDA REGU. EN DINE.
BECA	BECAS/PREST EDUC.
BIAC	AGEN.BIL.LOT.CON VEND
BIAS	AGEN.BIL.LOT.SIN VEND
BILV	VEND.BILLETES LOTERIAW

Income	Description
CAFE	RECO.CAFE/CORTE CAÑA
CENS	ING. CENSO
CERT	CERTIFICADOS AHORROS
CFSE	COMP. F.S.E./DIETAS
CODE	COMP. DESEMPLEO
CUEN	CUENTAS/COBRAR
DESA	PAGO GASTOS DESASTRE
DIET	DIETAS
DINE	DINERO EN EFECTIVO
DIVI	DIVIDENDO/INT/REGAL
EDIF	EDIF/BIENES RAICES ES
ENER	PAGOS GASTOS ENERGE.
ESPE	AYUDA EN ESPECIE
ESPF	AYUD ESPE N/PADRE/FAM
EXTE	EXE. 1 CDA.HOG. PRO
FEDE	PAGOS PROG. FED.
FIDE	FONDO EN FIDEICOMISO
FOND	FDO CTA.AHOR.GMED C.CD
GLOA	PAGO GLO. A.C.C.A.
GLOB	PAGOS GLOBALES/LUMP SUMP
HERE	HERENCIAS
HOPE	H.O.P.E.
I>30	ING.NO ANTICIP. >30
IMEC	DEV.EST.COMPL.TRA.PAR.
IMTC	DEV.EST.PARC/COMP/TR
INCE	INCENTIVO ECONOMICO
INDI	PAGOS INDIRECTOS
INME	ING.MENORES HC/SUST
IVOL	ING. CUERPO VOLUNT.
JTPA	PAGOS RETROACT.JTPA
LENT	LUGAR ENTERRAMIENTO
MARI	ING. DE MARICULTURA

Income	Description
NOTI	NO TIENE INGRESO
NPRO	NEGOCIO PROPIO
OAAV	OLD AMERICAN ACT V
OTPE	OTRA(S)PENSION(ES)
OTRO	OTROS RECURSOS
PADE	PAGOS ADELANTADOS
PADU	PEN. ALIM.ADULTOS
PAGO	P. GLOBALES(LUMP-SUM)
PAID	PAGO IND.GAST.DIN.U/F
PALQ	PROPIEDAD ALQUILADA
PAPA	PAGO PADRE ADOP./MEN.
PARE	PAGOS REALOJO
PARV	PAGO REHAB. VOC.
PDAE	PAGOS ASIST. ECON.
PENP	PAGO ENERG P.FED/ESTAL
PHCR	PAGO/SERV/HOG/SUS/CR
PHUD	PAGOS POR HUD
PJUS	PROP.JURIS.TRIB.ACC.TE
PMEN	PEN. ALIM. NIÑOS
PRAE	PAGO RETRO. AE/PAN
PRAG	PAGO RET.AGRO-PECUAR
PRCE	PAGO RETR.CENSO
PREM	PREMIOS EN DINERO
PRES	PREST.INDIV./INST.COM.
PRHC	PAGO RET.HOG.SUST.CR
PROP	PRO.PERS.BOTE AVI/VH ON
PRPT	PAGO RET. PAN-TRAB.
PRVO	PAGO RETRO REH.VOC.
PTRA	PAN-TRABAJO
PVEN	PROP.VENTA SIN EXITO
PVOL	PAGO A VOLUNTARIOS
RADI	RETRO. ADIESTRAMIENT

Income	Description
RCON	REINTEGROS/CONT/ING
REGA	REGALIAS
RELO	PAGOS RELOCALIZACION
REMA	REMANEN.PGLOBAL
RESS	RETROACTIVO SEG.SOC.
RETE	SALA.RETENIDO
RETF	RETIRO FEDERAL
RETI	RETIRO
RETM	RETIRO DE MAESTROS
RETP	RETIRO PRIVADO
RHUD	REEMBOLSOS HUD
RIRA	RETIRO IRA
RPEE	RETR.PROG.EMPL.C.ENV.V
RRET	RETRO. RETIRO/OTRO
RVET	RETROACTIVO VETERANO
SALA	JORNAL/SALARIO/ADIE
SCOR	S.C.O.R.E.
SEGP	PAGOS SEG. PRIVADO
SEGS	SEGURO SOCIAL
SEGU	LIQUIDACION SEGUROS
SINO	S.I.N.O.T.
TAME	PROG.TRAB.AGR.MIG/ESTA
TANF	BENEF.PROG.TANF
TECA	TERRENO/PROPIEDAD/CASAA
TOMA	RECOGIDO TOMATE
VAEX	VAL>1500.GASTO FUNE.
VEH1	PRIMER VEHICULO
VEH2	2DOVEH.SIN GR>4650
VEHA	VALOR VEH.ADICIONAL
VEHI	VEHICULO IMPEDIDO
VEHN	VEH. NEGOCIO/VIVIENDA
VETE	VETERANOS

Income	Description
VMAQ	VALOR EQP/MAQUI/OTRO
VNAR	COMP.VET.AFECT.AGEN.NA
VPOL	VALOR POLI. SEG.VIDA
VPRO	VENTA PROPIEDADES