ADFAN Batch ICD Change Request #197

MEDITI 3G Project
Government of Puerto Rico

Document Revision History

Version Number	Date	Description
0.1	02/25/2022	Initial Draft
0.2	03/03/2022	Peer Review
0.5	03/07/2022	QC Review
0.8	07/25/2022	Initial Draft for Review
0.9	10/18/2022	Initial Draft (Updates based on Statehub ICD v3.1)

Table of Contents

Table of Contents

1 Purpose of Interface Control

This Interface Control Document (ICD) documents and tracks the necessary information required to effectively define MEDITI3G's interface, including communication rules, to provide the development team guidance on the architecture of the interfaces to be developed. The purpose of this ICD is to clearly communicate all possible inputs and outputs for all potential actions whether they are internal to the system or transparent to system users.

This ICD is created during the Planning and Design Phases of the project. Its intended audience is the project manager, project team, development team, and stakeholders interested in interfacing with the system. This ICD helps ensure compatibility between system segments and components.

2 Introduction

This ICD describes the relationship between MEDITI3G (the source system), ADFAN (Families and Children Administration or in Spanish "Administración de Familia y Niños") (the trusted data source), and the State Hub, and the requirements that must be met. It describes the concept of operations for the interface, defines the message structure and protocols that govern the interchange of data, and identifies the communication paths along which the project team expects data to flow.

This ICD covers the requirements for MEDITI3G's implementation of the ADFAN batch interface and details the system implementation for internal use by the case worker. It details the use of the interfaces by the MEDITI3G system for both outbound data transfer to, and the processing completed on inbound data transferred from the State Hub.

For each interface, the ICD provides the following information:

- A description of the data exchange format and protocol for exchange.

- A general description of the interface.

- Assumptions and Constraints where appropriate.

- Estimated size and frequency of data exchange.

2.1   Scope

The Scope of this ICD document and what's covered are outlined in the table below. This scope table only represents this ICD and does not represent the scope of the MEDITI3G project and its interfaces.

The MEDITI3G data elements that will be validated by this interface are:

Table 1: ADFAN Scope

Category	Evidence	Scope
Foster Care	Foster Care evidence	In Scope
Adoption	Adoption evidence	In Scope
Living Arrangement	Living Arrangement evidence	In Scope
Authorized Representative	Authorized Representative Evidence	In Scope

Please note that the details of how each of the above-mentioned data elements are used in MEDITI3G, is defined in *Section 6.2.7.5 Detailed Scenarios*.

2.2   Team Members

In Table 2: Team Members is a list of all members involved in the discussions of the ADFAN interface.

Table 2: Team Members

Attendees	Organization
Evelyn Santos	PRMP
Brandon Pecylak	RedMane
Gunjan Dhooria	RedMane
Stephanie Nieves	RedMane
Ivan Galloza	RedMane
David Taberner	RedMane

Attendees	Organization
Patrice Hathorn	RedMane
Blake Hansard	PMO
Greg Charles	PMO
Aixa Boothby	Wovenware
Miguel Ruiz	Wovenware
Raquel Fas	Wovenware

2.3 Glossary of Terms

In Table 3: Acronym Definitions is a list of Acronyms and their corresponding descriptions.

Table 3: Acronym Definitions

Acronym /Term	Definition
ACK	Acknowledgement
ADFAN	Families and Children Administration In Spanish means: "Administración de Familia y Niños"
BSD	Business Service Definition
CHIP	Children's Health Insurance Program
CMS	Centers for Medicare & Medicaid Services
CR	Change Request
DOB	Date of Birth
EFT	Electronic File Transfer
FDD	Functional Design Document
FUNC	Function

Acronym /Term	Definition
GB	Gigabytes
HIPAA	Health Insurance Portability and Accountability Act
HITECH	Health Information Technology for Economic and Clinical Health
ICD	Interface Control Document
ID	Identification
IDD	Interface Design Document
IL	Integration Layer
JAD	Joint Application Design
JDBC	Java Database Connectivity
MARS-E	Minimum Acceptable Risk Standards for Exchanges
MB	Megabytes
MOU	Memorandum of Understanding
NACK	Negative Acknowledgement
NIEM	National Information Exchange Model
OIAT	Puerto Rico Department of Health's System Information Department. In Spanish means: "Oficina de Informática y Avances Tecnológicos"
OSI	Open Systems Interconnection model
PDC	Product Delivery Case
PGP	Pretty Good Privacy
PHI	Personal Health Information
PII	Personally Identifiable Information

Acronym /Term	Definition
PMO	Project Management Office
PROD	Production Environment
QC	Quality Control
MEDITI3G	Puerto Rico Eligibility and Enrollment systems
PREE	Puerto Rico Eligibility and Enrollment
PRMP	Puerto Rico Medicaid Program
SDSH	State Data Services Hub
SFTP	Secure File Transfer Protocol
SHA	Secure Hash Algorithm
SSA	Social Security Administration
SSH	Secure Shell
SSN	Social Security Number
TCP/IP	Transmission Control Protocol/Internet Protocol
TDS	Trusted Data Source
VPN	Virtual Private Network
XML	eXtensible Markup Language

The document "MEDITI3G Glossary", is available consisting of common terminology used, to describe system components in MEDITI3G.

3 Overview

In order to support the enrollment of eligible participants for Auto Foster Care Title IV-E and Auto Adoption Title IV-E, to the extent possible, MEDITI3G will receive a full case file from ADFAN on a monthly basis. This ICD documents the process of receiving and processing the

request file from ADFAN via the State Hub. This service will specifically help collect and/or verify the following eligibility factor:

- Adoption evidence
- Foster Care evidence

ADFAN local agency submits a CSV file to State hub, a minimum every month comprising of all children in foster care or receiving adopted subsidy.

The State Hub, after getting passed the validation prepares a response from the TDS, zips the manifest file and the response from the TDS with an SFTP-compliant filename and places it in MEDITI3G-designated SFTP Outbound (Response) Folder for the MEDITI3G IL to retrieve.

The subsequent Sections and Sub-Sections of this document provide all relevant information in sufficient detail on various different aspects of this ADFAN Batch interface, which will allow the development, testing, and implementation of this interface as part of the MEDITI3G solution.

3.1 Audience

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

4 Assumptions/Constraints/Risks

4.1 Assumptions

The following assumptions apply to the ADFAN Batch Interface:

- The basis for this document is the ADFAN Batch Participant Information ICD v3.0

- There will be a signed Memorandum of Understanding (MOU) agreement in place between PRMP and ADFAN to allow the sharing of ADFAN System information. This MOU shall define the terms and conditions for the exchange of information.

- The MEDITI3G System shall use the interface to assist Medicaid in determining the eligibility of PRMP participants.

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

4.2 Constraints

- MEDITI3G shall use the interface at a minimum, on monthly basis to update evidence & verification data provided by ADFAN to determine eligibility of PRMP beneficiaries.

- The interface shall only be dedicated to connecting to a single Trusted Data Source (TDS) for requesting data.

- The State Hub, the environment that will contain the Local Interface, shall not manage files greater than 100 MB.

- Availability of the State Data service hub and local agency (Section Interface Processing Time Requirement / Service Availability).

- Full Names used in MEDITI3G might include special characters, therefore technical transformations shall be done.

- Production Data shall not be used for testing.

- The Interface call to the ADFAN Service will be made using the approved architecture as detailed in the deliverable I.2.2 System Architecture plan.

- There is no limit to the number of batches MEDITI3G can submit in a given period; however, the BatchID field in the manifest Schema (timestamp) must increment by at least 1 minute.

4.3 Risks

There are no risks identified at this time.

5 General Interface Requirements

This section describes the functional decomposition process for verifying the corresponding data elements through the ADFAN Batch Interface as well as an overview process on how MEDITI3G will interact with other components of the transaction.

It will cover the security and integrity requirements needed for the call to be considered successful and achievable.

5.1 Interface Overview

The Local Interface residing in the State Hub shall connect to the MEDITI3G System with the ADFAN System to receive beneficiaries' personal information.

1. State hub shall receive, at a minimum, a monthly ADFAN Batch Participant Information from the Local Agency System i.e. ADFAN.

2. Once the ADFAN Batch Participant Information have been received from the agency, local interface hosted in State hub shall pack the response(s) in an encrypted ZIP folder and pass through to MEDITI3G System via the State Hub SFTP Server.

3. Alternatively, the interface shall determine instead to return a negative acknowledgment (NACK) back to MEDITI3G System in the scenarios where the interface cannot process the submitted batch response file, scenarios such as when the batch response file fails validation.

4. The new ADFAN batch triggers IL to run, which decrypts and retrieves response file(s) from state hub outbound folder to MEDITI3G response folder.

5. Finally, MEDITI3G System shall be able to retrieve, process and delete the response from the Local Interface via SFTP.

Figure 1 illustrates a high-level view of the interaction between the MEDITI3G System, the Local Interface, and ADFAN.
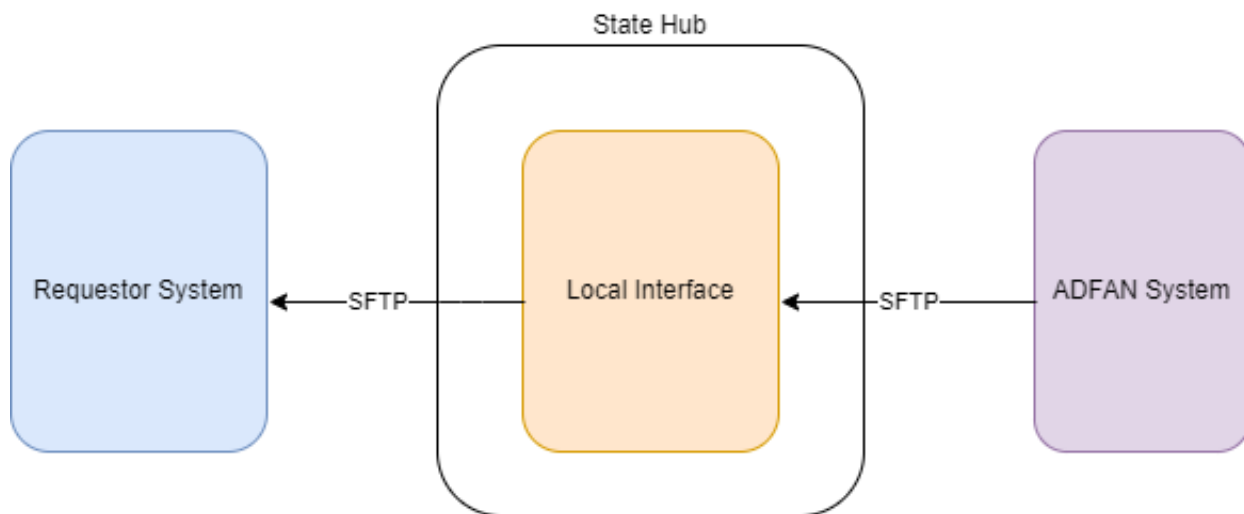
Figure 1: ADFAN Batch Participant Information Interface Enterprise Architecture

The ADFAN System is the Local Agency system that interacts with the Local Interface to send applicant/beneficiary information. The ADFAN System is in charge of sending the applicant/beneficiary information in a CSV file via SFTP to the local interface. The Local Interface is hosted in the State Hub and shall validate the response file received from ADFAN via SFTP and deliver the file to the MEDITI3G System via the State Hub SFTP Server.

5.2 Functional Allocation

5.2.1 ADFAN Request

This section is not needed as it is a one-way interface, where MEDITI3G only receives file from State hub.

5.2.2 ADFAN Response

The ADFAN Response process flow describes the actions taken by MEDITI3G when the batch is triggered.
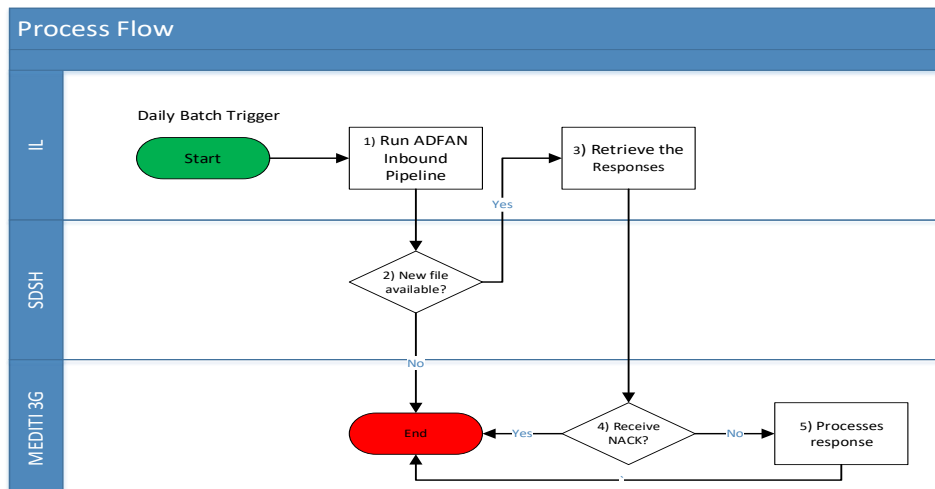
Figure 2: Batch Process Flow

1) Run ADFAN Inbound Pipeline.

The ADFAN Batch will run daily. This new batch shall trigger the ADFAN out pipeline to retrieve the latest file of ADFAN.

2) New File available?

ADFAN out pipeline checks if a new file is available in the state hub out folder.

- If **YES**, then process advances to step 3 and after executing step 3 purges the folder of any older file.
- If **NO**, then the process stops.

3) Retrieve the Response

ADFAN out pipeline will decrypt the response file. Details of decryption can be found in Security Requirement section.

More details can be found in IC prepared by WW ICD_ADFAN Batch Participant Information v3.1

4) Receive NACK?

This step refers to a decision path that depends on the decrypted response file from IL.

- If **Yes**, then each file received will have a naming convention as defined in Data Transfer section. A NACK is defined by naming convention and is not processed any further as the process stops.
  - NACK file can be retrieved manually from MEDITI3G response folder and can be analyzed using State hub provided error codes as defined in Response Manifest Data Elements
- If **No**, then files received is not NACK and proceed to step 5.

5)Process Response

The decrypted zip files received will be unzipped, and the response will be processed as per XML schema section for Manifest and Response file.

Individual requests are processed based on the Detailed Scenarios using the Person match method defined in Intake Application Processing FDD.

5.3   Data Transfer

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 ADFAN System shall place each response file to be delivered to the MEDITI3G System.

The **FUNC** attribute for the ADFAN Batch Interface is **ADFANBPII.**

Table 4: File Naming Convention for the State Hub ZIP Files

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

Table 5: Description of the File Naming Standards for the State Hub SFTP File Naming Conventions defines the specific information for each attribute in the Outbound State Hub SFTP ZIP filenames.

Table 5: Description of the File Naming Standards for the State Hub SFTP File Naming Conventions

Attribute	Description
SourceID	The source identification given to the MEDITI3G to identify State Hub response match file.
Func	The specific data function that is requested to the State Hub.
Date	The date of the file submitted identified by the following format DYYMMDD
Time	The timestamp of the file submitted is identified by the following format THHMMSSNNN (if milliseconds are not

Attribute	Description
	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)
Out	Transfer direction Note: This is only applicable for the Outbound folder.

The figure below contains a description of the schema each XML file must contain to pass validations of the ADFAN System.

After the interface has received in CSV format the response(s) from the ADFAN 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 MEDITI3G System to download them.

The figure below illustrates a batch response in the designated Local Interface Outbound folder with one manifest and one ADFAN batch response file.
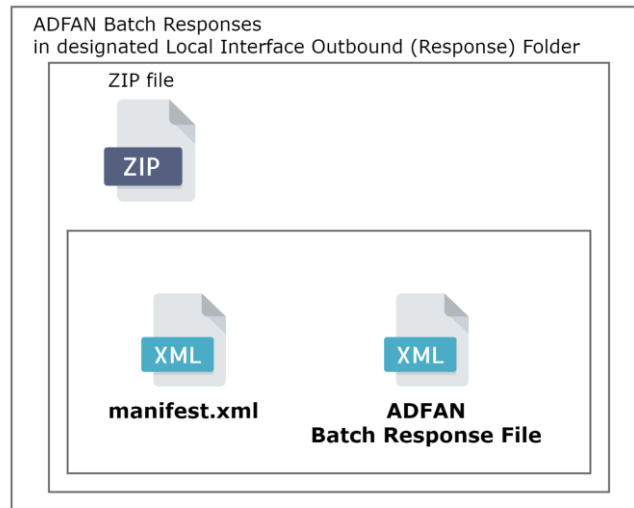
Figure 3: Outbound ADFAN ZIP file with responses

When a validation error of the batch response file has occurred at the Local Agency, the Local Agency 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 MEDITI3G System.

The figure below illustrates a NACK in the designated Outbound folder with one manifest. A NACK only contains one manifest file within the ZIP file.
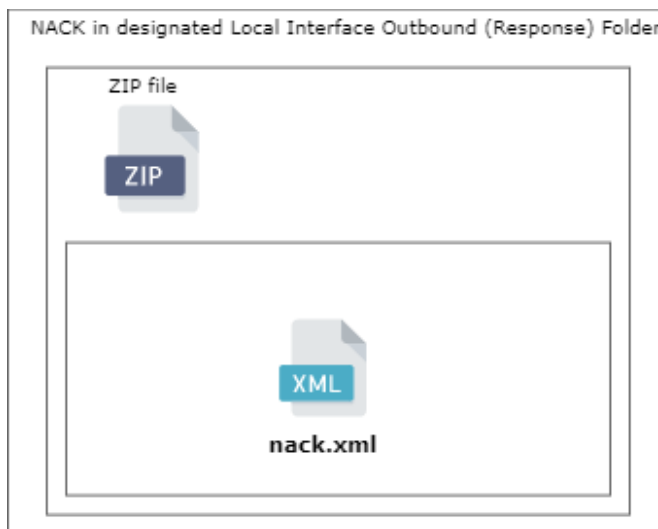
Figure 4: Outbound ADFAN Zip file with NACK

5.4 Transactions

The batch response file transaction between MEDITI3G System and PRMP System (with ADFAN's data) is described below:
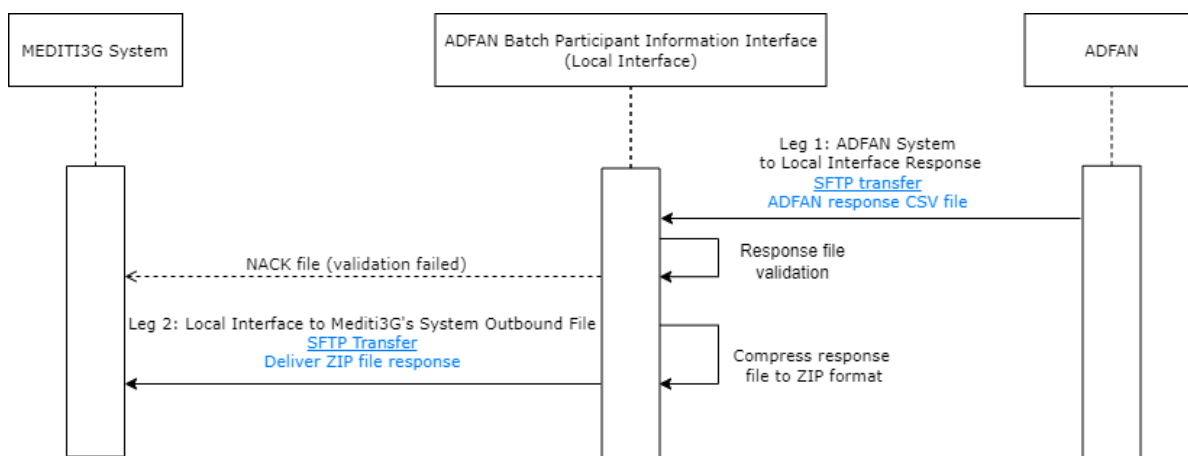
Figure 5: Transaction between Mediti3G - Local Interface - ADFAN sequence

Leg 1: ADFAN System to Local Interface Response

•   The interface is responsible for receiving and validating the responses from the ADFAN System in CSV format. This transaction includes the responses from the ADFAN System containing personal identifiable information, address, foster, adoption, caseworker, and Title IV-E information.

Leg 2: Local Interface to MEDITI3G 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 MEDITI3G System via SFTP. This transaction shall take the responses from Leg 1 and deliver them to the MEDITI3G System.

5.5 Security and Integrity

The Daily file is received using the ADFAN File Transfer process over a secure connection. Below are further details on the security measures taken in each connection:

• Leg 1 – The Integration layer will authenticate against the State Hub SFTP using an electronic certificate and poll the location to see if the Daily Error Response file has been returned. When it detects the file in this location it will retrieve it and then decrypt it for consumption.
• Leg 2 – The integration layer will reach out to the MEDITI3G database, authenticate, and then establish a JDBC connection to write out records to the inbound staging table.

In addition to the security measures specified for each of the data transfers outlined above, the interfaces will rely on security from MEDITI3G's configuration of networks and firewalls to protect data at rest and in transit. For additional information on these configurations see the i.2.2 System Architecture plan.

6 Detailed Interface Requirements

The following sections provides a detailed description of the interaction between MEDITI3G and ADFAN through the Local Interface in the State Hub.

ADFAN will send a full file with all relevant information about current and closed cases in the ADFAN System to the State Hub. The data elements that the interface shall process from the Local Agency are foster, adoption, assigned case worker and Title IV-E information.

6.1 Requirements for ADFAN File Submission

MEDITI3G will receive, at a minimum, a monthly response file(s) from the Local Agency System through SFTP.

6.1.1 ADFAN Batch Request Process Flow

This section is not needed as it is a one-way interface, where MEDITI3G only receives file from State hub.

6.1.2 Trigger Point

This section is not needed as it is a one-way interface, where MEDITI3G only receives file from State hub.

6.1.3 ADFAN Pre-Transfer Verifications

This section is not needed as it is a one-way interface, where MEDITI3G only receives file from State hub.

6.1.4 General Processing Steps ADFAN – Request

This section is not needed as it is a one-way interface, where MEDITI3G only receives file from State hub.

6.1.5 ADFAN Request Manifest File

This section is not needed as it is a one-way interface, where MEDITI3G only receives file from State hub.

6.1.6   ADFAN NACK File

State hub validates the responses after receiving the CSV file from local agency. If the file from local agency fails validation, state hub prepares a NACK file and send to the outbound folder for IL to retrieve.

6.1.6.1   NACK File Naming

The SDSH populates the ADFAN response manifest Schema to return NACKs to the IL. The NACK manifest filename is nack.xml.

6.1.6.2   NACK Data Elements

Refer to NACK Batch Category Codes and NACK Response Codes for more details.

6.1.6.3   NACK Batch Category Codes

The service Schema uses BatchCategoryCodes in conjunction with ResponseCodes to categorize the NACK the TDS and/or the SDSH returns to the IL.

Table 6 provides a consolidated list of BatchCategoryCodes and notes to describe expected actions and requirements for each BatchCategoryCode for NACKs.

Table 6: BatchCategoryCodes

BatchCategoryCode	Notes
NACK_RESP	If the State Hub rejects entire batch or if more than one agency-destined set of files fail TDS-specific request manifest Schema validations No attachment with response
ADFAN_NACK_RESP	Returned with Service-SpecificData/ResponseMetadata populated with SHE005000 (one or more files failed validation) and Attachment/ResponseMetadata section of manifest Schema populated to show status of each file in batch. Returned if any validation fails or the State Hub incurs exception in the TDS. No attachment with response

6.1.6.4   NACK Response Codes

The table below provides details about the manifest Schema ResponseCodes the SDSH returns to the IL if the SDSH returns a NACK in cases where the SDSH rejects the received CSV file because of response validation failure.

Table 7: NACK Response Codes

Response Code	Response Description Text	Validations/Expectations
SHE005000	One or More Files Failed Validation	The State Hub returns this code in the ServiceSpecificData/ResponseMetadata section of response manifest Schema if the error in the request occurs at file level. Note: When the Hub returns SHE005000, the Hub also returns a ResponseCode in the Attachment/ResponseMetadata section of the response manifest Schema to describe the file-level error.
SHE005001	Schema Validation Failure	The State Hub returns this code in the ServiceSpecificData/ResponseMetadata section of the response manifest Schema if the request manifest Schema fails State Hub validations. The State Hub also returns this code in the ServiceSpecificData/ResponseMetadata section of the response manifest Schema if the ADFAN file Schema fails State Hub Schema validations. The Requester evaluates and corrects the condition before resubmitting the batch (for manifest Schema validation failure) or file (for ADFAN file Schema validation failure).
SHX005502	Unexpected System Exception	The State Hub returns this code in the ServiceSpecificData/ResponseMetadata section of the response manifest Schema in situations when the State Hub accepts a file transmission but incurs an unexpected State Hub error prohibiting the State Hub from communicating with the TDS.

6.1.7   Response Manifest File

The SDSH populates the ADSEF response manifest Schema to return responses from the TDS to MEDITI3G.

6.1.7.1   Response Manifest File Naming

The response manifest filename is manifest.xml.

6.1.7.2 Response Manifest Data Elements

The State Hub populates the response manifest schema to return responses from the TDS to MEDITI3G.

Figure 6 - 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.

ADFAN Response
Manifest Schema

Figure 6 - Response Manifest Schema: State Hub to Requester File Response

6.1.7.3 Response Manifest Response Codes

Table 8: 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 8: State Hub to Requester Manifest Response Codes

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 ADFAN file. The Local Interface expects the Requester to correct the condition and resubmit the file with a new BatchID.	ADFAN_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.	ADFAN_FILE_REJECTED_RESP

SHS000000	Success	ADFAN_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: ADFAN request and response record counts always match.
SHX005502	Unexpected System Exception Note: This condition can occur for an ADFAN 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.	ADFAN_FILE_REJECTED_RESP
SHX005507	File validation error at TDS.	ADFAN_FILE_REJECTED_RESP
SHX003001	Unexpected Exception Occurred at Trusted Data Source Note: This condition can occur for an ADFAN 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.	ADFAN_FILE_REJECTED_RESP

6.1.7.4   Response Manifest BatchCategoryCodes

The table below 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 9: Summary for ADSEF Response BatchCategory Codes

BatchCategoryCode	Notes
ADFAN_FILE_REJECTED_RESP	Returned if there is any error related to processing the ADFAN file in the Local Agency. No attachment with response See Table 18 - Manifest Schema: State Hub to Requester ResponseCodes for ResponseCodes examples
ADFAN_RESP	Attachment returned with response ResponseCode in manifest SHS000000

6.1.8 Request/Response Message Format

Figure 7 - ADFAN Response Manifest Schema contains the ADFAN Batch Participant Information manifest XML Schemas for receiving files. The samples in each ZIP file display examples of manifest schemas.

ADFAN Response
Manifest Schema.zip

Figure 7 - ADFAN Response Manifest Schema

6.2 Requirements for ADFAN

This section presents the requirements for the interaction between MEDITI3G and ADFAN agency information service.

It covers the maximum file size for each ADFAN destined request file. It also covers the business process for when a response is received from the SDSH.

6.2.1 Assumptions

The following assumptions are to be considered for the information being received from SDSH:

- SSN format has been previously validated in the intake process based on the guidelines provided by the SSA Composite Interface BSD.

- Batch will the Person Match criteria as defined in the Intake Application Processing design.

- Sate hub sends all records, including the ones shared previously from local agency ADFAN at a minimum, on monthly basis to update evidence and verification data provided by ADFAN to determine eligibility.

- If there are no communication problems, the ADFAN Batch Environment shall be available 24 hours a day, 7 days a week, except for previously scheduled and notified downtimes and maintenance windows.

6.2.2   Constraints

The following constraints apply to the interactions between MEDITI3G and the SDSH:

- The maximum file size limit for ADFAN request files inside the ZIP file is 104,857,600 bytes (100 megabytes), which is roughly 125,000 individual responses.

  - In the event if the response file is bigger than 100 megabytes, state hub shall send multiple response files.

- The Federal Hub implements NIEM 2.0 and has not indicated if and 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.

- State Hub Blob Storage shall be configured to delete any file left for more than fourteen (14) days.

6.2.3   Trigger Points

ADFAN batch trigger's the outbound pipeline at IL to retrieve file. For more information, refer to step 1 of Batch Process Flow.

6.2.3.1   Alternate Trigger Point

There is no alternate trigger point.

6.2.4   General Processing Steps

MEDITI3G will receive, at a minimum, a monthly response file(s) from the Local Agency System through SFTP.

6.2.5   Request Pre-Conditions

This section is not needed as it is a one-way interface, where MEDITI3G only receives file from State hub.

6.2.6   Response Processing

Once the IL detects that the SDSH response file is available in the SFTP location it will collect the file, extract the corresponding files and populate the inbound staging tables. Further details on this processing are described in the below sub-sections.

6.2.6.1 Review Response File

Once the SDSH sends the ZIP file to the outbound SFTP folder, the IL will collect the response, unpack the file, transform the data and populate the inbound staging tables. The response manifest file will be analyzed and processed.

6.2.6.2 ADFAN Response Process Flow

The below process flow illustrates the response process flow for when a response is received from the ADFAN through the SDSH. It also covers the expected response and actions from the caseworker once the initial verification and matches of information has been done.

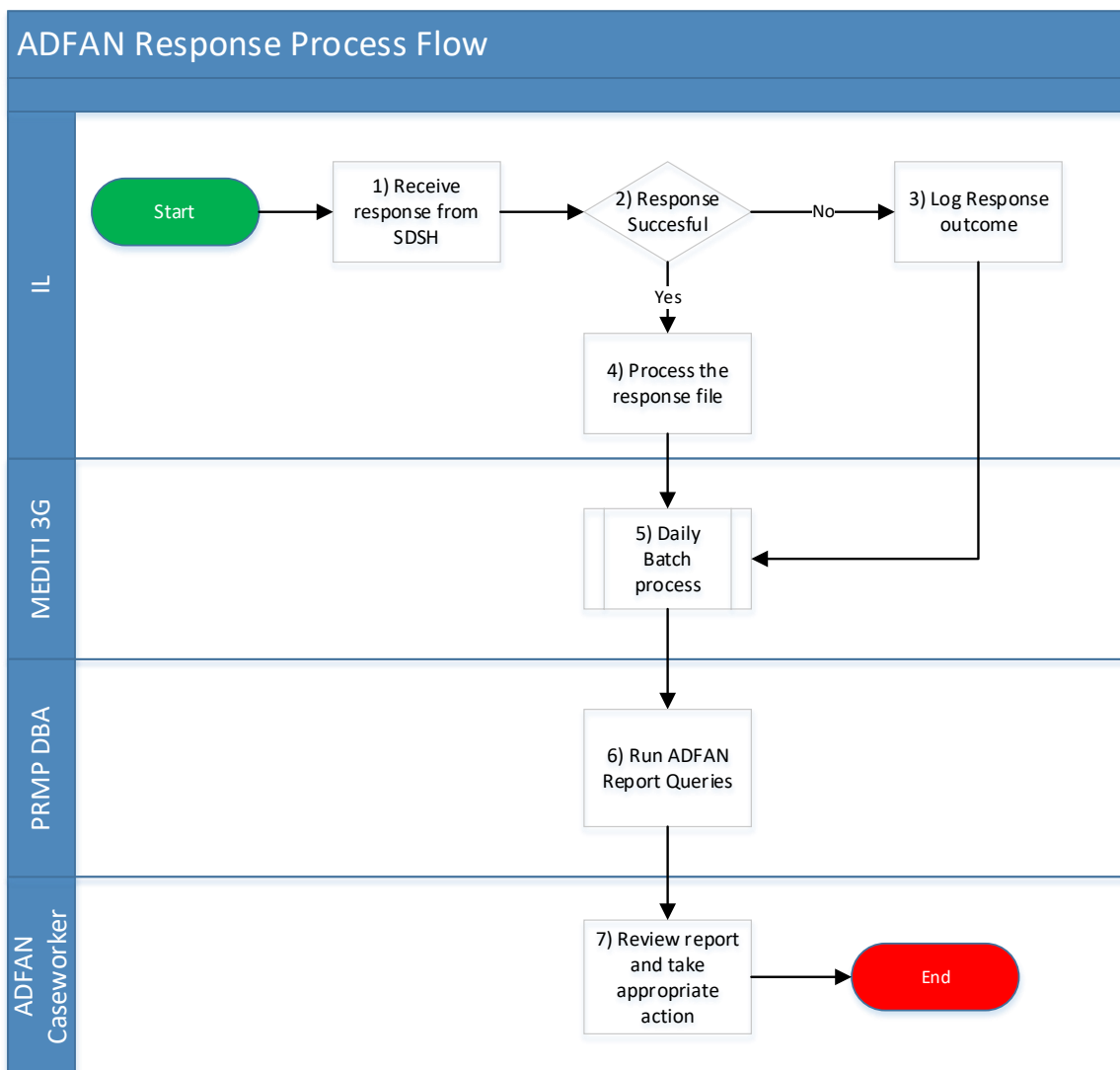Below are also described with more detailed information each step on the response process.

Figure 8: ADFAN Response Process Flow

Process Flow Steps

1) Receive response from SDSH

Once the IL detects there is a file on the SFTP outbound response folder. It will download it and the unzip file. The IL will then review the response manifest file and the BatchCategoryCode field. Proceed to step 2.

2) Response Successful

This is a decision path where the BatchCategoryCode is reviewed in the response manifest file in order to determine the next steps.

If the BatchCategoryCode is "ADFAN_NACK_RESP" then there was an error processing the ADFAN file from the TDS. Therefore, no file will be returned from the SDSH. Proceed to step 3.

If the BatchCategoryCode is "ADFAN_RESP" then it was a successful response, and a file is included in the ZIP file for MEDITI3G to process. Proceed with step 4.

3) Log Response outcome

The reasons why a file could be rejected from the TDS are detailed in section ADFAN NACK File. **Error! Reference source not found.**

Once the rejected response and code has been received this will be written out to the logs so that the Technical Support staff can be notified and act upon that to correct it so that the next batch does not have the same error. MEDITI3G will not attempt to send the same file again to the SDSH. The process will continue as defined in step 5.

4) Process the response file.

After the MEDITI3G IL receive a successful response from ADFAN, first it will match the BatchID from the response to the BatchID request. If it matches, then the IL will load the inbound staging tables.

5) Daily Batch Process

The MEDITI3G Batch process will begin with a review of each response received and match it against the correct beneficiary. After that, the processing will continue as defined in the Detailed Scenarios.

6) Run ADFAN Queries

Two set of queries are provided to which provides data for the participants where a manual intervention by caseworker is required:

- o *ADFAN Exact Match Query Report:* This query provides list of participants from response where they had an exact match with a participant in MEDITI3G. Refer Detailed Scenarios for more details.
- o *ADFAN Non-*Match Query Report: This query provides list of participants from response where they had either partial match or they don't match with participant(s) in MEDITI3G.

8) Review report and take appropriate action

Recipients of query report generated in Step 7 enables user to take appropriate action of resolving the partial match, if applicable and updating the evidences or register new participants in MEDITI3G from non-match report.

NOTE: Job aid(s) will provide additional information.

6.2.6.3 **ADFAN Response File Naming Convention**

ADFAN response file has the following naming convention according to the ADFAN Batch Participant Information ICD v3.1 (dated 09/2022):

Type - String

File Naming format -
TDS_ResponseType_Response_DocumentSequenceID_FileCreationTimestamp.Extension

- **TDS** – ADFANV_Batch
- **ResponseType** - Response
- **Response_DocumentSequenceID** - 00001
- **FileCreationTimestamp** - yyyyMMdd'T'HHmmssSSS'Z'
- **Extension** - .xml

Below is an example of a response file from ADFAN:

"ADFANV_Batch_Response_00001_20190810T100419876Z.xml"

6.2.6.4 Matching MEDITI3G applicants against response ADFAN file

MEDITI3G will use an existing Person match method defined in Intake Application Processing FDD to match the participants in the response file.

After processing, PRMP DBA will run the appropriate queries to provide PRMP ADFAN Caseworkers with a list of participants requiring manual processing. Refer to Detailed scenarios for more details.

6.2.6.5 Detailed Scenarios

The embedded document below presents the ADFAN detailed scenarios that define the actions to be taken once the response is received from ADFAN.

ADFAN Batch
Scenarios.xlsx

Figure 9: Detailed Scenarios

6.2.6.6 Transaction Notes

If the Detailed scenario has identified that a Transaction Note should be created for a specific match, then MEDITI 3G will generate a Transaction Note and populate it with information from the response file.

6.2.6.7   Special Processing

There is no special processing identified or analyzed outside the processing defined in this ICD or on the detailed scenarios.

6.2.7   Interface Processing Time Requirements / Service Availability

6.2.7.1   SDSH and ADFAN Local Agency Availability

The Local Interface shall process the file deposited by the Local Agency as soon as the file is received in the SFTP folder. The time to process the file shall vary depending on the size of the file deposited by the Local Agency.

6.2.7.2   ADFAN Request timeframe

This is a one-way interface; no request is generated.

6.2.7.3   ADFAN Response Timeframe

Responses are sent as new files are made available by State hub.

6.2.7.4   Processing Times

The execution of this interface is based on batch execution by MEDITI3G's scheduler. This batch is run as per the scheduled frequency and picks up applicants whose benefits are due for recertification. For more information on frequency of the batch, please refer to the Interface Design Document.

6.2.7.5   MEDITI3G Response Fallback

MEDITI3G will check for a new file on a daily basis. If the file is placed in the State hub outbound after the Daily Batch Stack is executed, then the file will be retrieved the next day.

6.2.8   ADFAN Message Format (or Record Layout) and Required Protocols

6.2.8.1   ADFAN File Layout

The embedded document below contains the XML Schemas that's return to MEDITI3G from the TDS via the SDSH. The source of this zip file is the ADFAN Participant Information ICD v3.0 (dated 06/2022).

**ADFAN Batch
Response Schemas.z**

Figure 10 - ADFAN Response File Schema

6.2.8.2 Data Assembly Characteristics

Reference the file layout file in section ADFAN File layout.

6.2.8.3 Field/Element Definition

The following section defines the ADFAN destined file data elements, and ADFAN and State Hub Response Codes. This information is what MEDITI3G receives when using the ADFAN Batch Service.

6.2.8.3.1 MEDITI3G Request Data Mapping

This is a one-way interface; no request is generated.

6.2.8.3.2 MEDITI3G Response Data Mapping

The ADFAN Response File outlines the file layout and data elements that is returned by ADFAN, and what data elements MEDITI3G will use to create verification / in-edit evidence and drive post processing. Refer to the Detailed Scenarios section for post processing.

ADFAN Response
Data Mapping.xlsx

Figure 11: ADFAN Response Data Mapping

6.2.9 Communication Methods

The following subsections along with Appendix A – Interface Controls outline the communication requirements for all aspects of the communication stack to which both systems participating in the interface shall conform. This includes hand-shake messages, timing of the exchanges, and steps taken to handle errors.

6.2.9.1 Interface Initiation

The Local Interface monitors the Outbound Folder by running a mechanism that shall be triggered when a new CSV 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 MEDITI3G System shall provide the correct public key to be able to submit the file and initiate the interface execution.

6.2.9.2 Flow Control

This is a one-way interface where MEDITI3G receives responses from State hub, at a minimum, on monthly basis to update evidence & verification data provided by ADFAN to determine eligibility of PRMP beneficiaries.

The first level refers to the 'LocalAgencyBatchResponseCode'. This code will return the response code that determines whether the transaction to ADFAN has been successful or not.

The second level refers to the 'ResponseCode'. This level will provide the response code for each of the individual response for the members that have been provided by ADFAN and processed by State hub,

Depending on the response on each level, a process will be followed by the Local Interface system, to either retry the request or review the technical issues that might be preventing a successful transaction.

For additional information regarding the orchestration of real time interfaces refer to the IDD.
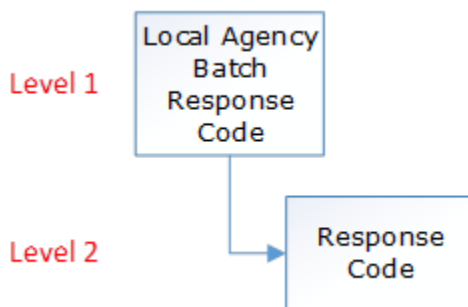

Figure 12 - ADFAN Response Codes

The information regarding the NACK messages sent from the interface to the MEDITI3G System can be found in sections Response Manifest Response Codes.

Batch Response Code

Refers to the codes returned in the field LocalAgencyBatchResponseCode in the response payload.

Table 10:ResponseCode: ADFAN Batch System LocalAgencyBatchResponseCode

LocalAgencyResponse /LocalAgencyBatchResponseCode	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 ADFANResponse/ADFANVerificationCode in Manifest Schema: State Hub to Requester ResponseCodes.

Response Code

Refers to the codes returned in the field ReturnCode in the response payload.

Table 11:Response: ADFAN Batch System LocalAgencyIndividualResponseCode

LocalAgencyIndividualResponse /ResponseCode	Description	Note
9999	Unsuccessful	If the ResponseCode is 9999, no data is returned on the response record. This error is intended when no other code exists to describe an error. This could also mean the data returned from the agency for this participant is invalid, so it was rejected in isolation, which prevents the State Hub from rejecting the entire response file.
0000	Successful	Success Response ADFANResponse/ADFANVerificationCode in Table 18 - Manifest Schema: State Hub to Requester ResponseCodes.

6.2.10 Security Requirements

The Interface will rely on the security of Networks and firewalls configured as per the I.2.2 system architecture document to protect the files created and transferred by this interface. The files created, encrypted, and transferred by this interface contain Personally Identifiable Information (PII) and will be secured in transit and at rest.

For additional details on the security applied to transfers between the component systems see section Security Requirements.

7 Qualification Methods

This ADFAN Batch ICD represents the delivery outcome of the evidence validation and interface analysis that has been gathered. Input from Puerto Rico Medicaid Program experts and WovenWare team had been considered for this document during the continue JAD sessions.

Step 1: The Analysis and Inspection phase will be completed by Intervoice. As part of the oversight on behalf of PRMP, Intervoice will analyze and inspect the documents provided in order to provide guidance if the requirements from CMS are met according to federal guidelines and from the Project Manager Office perspective.

Step 2: Following the acceptance of the ICD and relevant documentation the webservice will be developed as per the specifications outlined in this ICD and internal testing will be completed (Unit testing and functional testing) prior to testing in compliance with the project MTS.

Step 3: Testing Phase will commence once Intervoice confirms all the entry criteria defined in the MTS have been met.

8 Related Documents

Table 12: Related Documents

Document	Reference
Data Integration and Interface Control Document	Master deliverable for all interfaces and content definition for all ICD documents
MEDITI3G Glossary	Glossary that serves as a reference document for the Puerto Rico Eligibility & Enrollment (MEDITI3G). It defines common terms used to describe system components.
i.2.2 System Architecture plan	Master document for information about system architecture
ADFAN Batch Participant Information ICD v3.0	Table layouts, error codes, XML Schemas, Data elements requirements
ADFAN Batch High Level Design Document v3.0	High Level Design Document for ADFAN Batch interface

9 Requirements Matrix

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

Table 13: Requirements Matrix

Requirement Number	Requirement Description	Fit-Gap	Implementation Details

10 Issue Register

No issues have been identified at the time of documenting this ICD.

Appendix A – Interface Controls

Table 14: OSI Application Layer

Interface Type	Interface From	Interface To	Description of Interface	Other Information
MEDITI3G System	MEDITI3G	Federal Data Hub	SSH and FTP (the two components that make up sftp) both live on the application layer and are responsible for encryption and decryption of information being transferred.	

Table 15: OSI Presentation Layer

Interface Type	Interface From	Interface To	Description of Interface	Other Information
Translation from network format to application format	MEDITI3G	Federal Data Hub	This layer is passthrough	

Table 16: OSI Session Layer

Interface Type	Interface From	Interface To	Description of Interface	Other Information
Establishing session	MEDITI3G	Federal Data Hub	This layer is passthrough	

Table 17: OSI Transport Layer

Interface Type	Interface From	Interface To	Description of Interface	Other Information
Web Service	MEDITI3G	Federal Data Hub	A raw web socket is used by SSH and FTP	

Table 18: OSI Network Layer

Interface Type	Interface From	Interface To	Description of Interface	Other Information
Web Service	MEDITI3G	Federal Data Hub	Interface communication will user regular internet protocol (TCP/IP) for general purpose	

Table 19: OSI Data Layer

Interface Type	Interface From	Interface To	Description of Interface	Other Information
Web Service	MEDITI3G	Federal Data Hub	Interface communication will user regular internet protocol (TCP/IP) for general purpose	

Table 20: OSI Physical Layer

Interface Type	Interface From	Interface To	Description of Interface	Other Information
Web Service	MEDITI3G	Federal Data Hub	Interface communication will user regular internet protocol (TCP/IP) for general purpose	