Electronic Submission of Medical Documentation (esMD)

RC Technical Release Changes for AR2024.10.0 (Final)

Version 2.0

07/17/2024

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1 Introduction

This Technical Release Changes (TRC) document provides the details of the interface and technical release changes that will be deployed to the Production (PROD) esMD System in the October 2024 release (AR2024.10.0). The following change requests and system enhancements are addressed in this document:

1. CHG01: eChimp CR 13549 - Enhancements to Improve the Electronic Submission of Medical Documentation (esMD) Review Contractor (RC) Client Software Reject Functionality.

    a. Implements the Notification Utility Library to replace the Admin and PA Reject Input screens in the RC Client application.

    b. Updates to the RC Client Application Programming Interface (API) that impact the RCs

2. CHG02: Enhancements to the eMDR Process Steps to Streamline Functionality and Improve Reporting.

This document must be used in conjunction with the Centers for Medicare & Medicaid Services (CMS) esMD Review Contractor (RC) Implementation Guides for Java and .NET.

Note: RCs must use Java Development Kit (JDK) Version 1.8 or higher and .NET Framework Version 4.5 or higher.

Note: The RC Client Java API and .NET version numbers for the October release will be 15.

The audience of this document are implementers, such as architects and developers, who are responsible for the exchange of supporting/attachment information among healthcare providers, RCs, and their business associates such as CMS.

2 Overview

This document outlines the functional/technical aspects of the following functionalities that will be implemented in the October 2024 release for changes under CHG01, CHG02, and fixes to address known defects.

2.1 CHG01: eChimp CR 13549 - Enhancements to Improve RC Client Reject Functionality

Currently the RC Client facilitates Review Contractors (RCs) in reporting any Reject Errors (Administrative and PA Reject) using API methods integrated them into their user interfaces (UIs) and esMD provided UI input screens.

The purpose of eChimp CR 13549 is to provide the following enhancements to RCs:

1. Replace the RC Client UI input screens by implementing the Notification Utility library for RCs to enable real-time notification delivery to esMD.

2. Streamline the process, reduce dependency on manual input, and address existing limitations in the current implementation.

3. Offer related assistance to the RCs in fully incorporating the API method and ensure a smooth transition for the RCs still using these screens by providing necessary support and guidance.

4. Facilitate a seamless integration of the Notification Utility library into the RC's backend systems, enabling efficient and secure notification delivery to esMD, thereby enhancing overall operational efficiency and compliance.

2.2 CHG02: Enhancements to the eMDR Process Steps to Streamline Functionality and Improve Reporting

The Electronic Submission of Medical Documentation (esMD) system currently allows the transfer of eMDRs from the RCs to the Providers/Health Information Handlers (HIHs) for both Pre-Payment and Post Payment related document requests.

The purpose of these eMDR process and reporting enhancements is to address eMDR submission issues and related errors that have been identified in the past. The below changes will benefit both the sender and the receiver of eMDRs.

1. **Updating Terminology:** Revising terms used within the system for better alignment and understanding.

2. **Sorting Functionality:** Enhancing the sorting capabilities to improve data organization and accessibility.

3. **Updating Column Labels:** Modifying labels of some columns for better clarity and consistency.

4. **Categorization and Display Based on Content Type Codes:** Implementing changes to how data is categorized and displayed based on content type codes.

Several updates have been made to the esMD system to improve processing and streamline the functionality. These updates include:

1. Updating the existing eMDR Content Type Codes (CTCs) with the new CTCs, updating naming conventions, updating field descriptions, and updating report sorting:

    a. Pre-Pay from 1.5 to 2.5

    b. Post-Pay from 1.6 to 2.6

    c. Post-Pay-Other from 1.6 to 2.6

2. Sending Registered Provider Files (RPF) to RCs in batch file format and to HIHs in a JSON structure when new Providers are added to or updated in esMD System.

3. RCs and HIHs are requested to use the Technical Release Change (TRC) documents and Implementation Guides (IGs) for additional information regarding the JSON formats and the latest changes.

4. Both HIHs and RCs are requested to participate during the technical calls and to review the requirements, technical changes, and expected outcomes.

Note: These changes primarily affect features that involve communication between the HIHs and esMD. However, the collective changes are applicable to the entire eMDR process and all claim types.

2.3 Fixes to Address Known Defects

Two defect fixes are included in the October 2024 release.

3 Assumptions

The following assumptions apply to the October 2024 release:

1. **Review Contractor Technical Teams' Responsibilities:**
   - **Integration:** Build and integrate the Notification Utility library into the RC's backend systems by providing the source code from the esMD team. By providing the source code, a significant amount of development time will be saved for the review contractor technical team.
   - **Security Management:** Ensuring the secure management of authentication details (username, password, client key, client secret) in compliance with esMD security recommendations and standards. Review Contractors can use the existing client key and client secret.
   - **Thorough Testing:** Conducting thorough testing of the Notification Utility integration.
   - **Project Alignment:** Ensuring the integration aligns with the project timeline and requirements.
   - **Source Code Provision:** The esMD team will provide the source code for the Notification Utility library. By providing the source code, significant development time will be saved for the review contractor technical team.

2. **Removal of Input Screens:**
   - The Admin and PA Reject User Interface input screens will be removed from the RC Client application starting with the January 2025 release.
   - Necessary support and guidance will be provided to ensure a smooth transition.

3. **Applicability of Errors:**
   - Administrative Reject Errors: Applicable to all supported esMD lines of business.
   - Non-PA/PWK Reject Errors: Applicable to Medicare Administrative Contractors (MACs) and Recovery Audit Contractors (RACs).
   - PA/PCR Reject Errors: Applicable only to MACs.

Note: These changes are applicable to RCs using the Notification Utility Library. It is not recommended to use both the Notification Utility and the RC Client User Interface to submit Admin and PA Reject notifications.

4 CHG01 (eChimp 13549) RC Client Enhancement High-Level Requirement Details

The existing RC Client facilitates Review Contractors (RCs) reporting of any Reject Errors (Administrative, Non-PA Reject & PA Reject) using various function methods, utilization purposes, and UI input screens. Most RCs have implemented these API methods and incorporated them into their UIs. However, a few RCs still use the esMD provided reject input screens.

4.1 Objective

The main objective of this Change Request is to implement a Notification Utility Library and assist the RCs by facilitating the modification of their internal process by incorporating the API methods to report the Administrative Errors and PA Reject Responses directly instead of using the RC Client UI input screens. This also aims to address existing functional limitations.

4.2 Scope

- Provide the necessary API methods to the RCs.
- Offer related assistance depending on the nature of the help needed and/or sought by the RCs.

4.2.1 Technical Implementation

1. **API Methods**
   - Enhance and provide detailed documentation for API methods to handle all Reject errors.
   - Ensure the API methods are robust and cover all use cases currently managed by the input screens.

2. **Removal of Reject Input Screens**
   - Identify and remove the Admin Error and PA Reject input screens from the RC Client starting from January 2025 release.
   - Ensure a smooth transition for the RCs still using these screens by providing necessary support and guidance.

Note: The Admin and PA Reject UI input screens will be removed from the RC Client application starting with the **January 2025 release**.

3. **Addressing Functional Limitations**
   - Review and resolve any existing functional limitations in the current implementation.
   - Implement any additional changes required to ensure full functionality post removal of input screens.

4.3 Administrative Error Notification

October 2024 Release Implementation: The esMD system will be enhanced to accept Admin Error notifications containing multiple 'esMDTransactionId' elements. This update includes changes in the Admin Error Notification JSON structure and introduces new validation processes. The Notification Type for these requests is "ADMINERROR_V1".

Objective: With respect to Administrative Error Notifications, the objective of this Change Request (CR) is to:

- Assist the remaining RCs in fully incorporating the API methods.
- Remove the Admin Error input screens from the RC Client.
- Address a few existing functional limitations.

4.3.1 Admin Error Process Flow

Figure 1: Admin Error Process provides an overview of the logical flow of the Admin Error Process implemented in the Notification Utility Library.

Figure 1: Admin Error Process
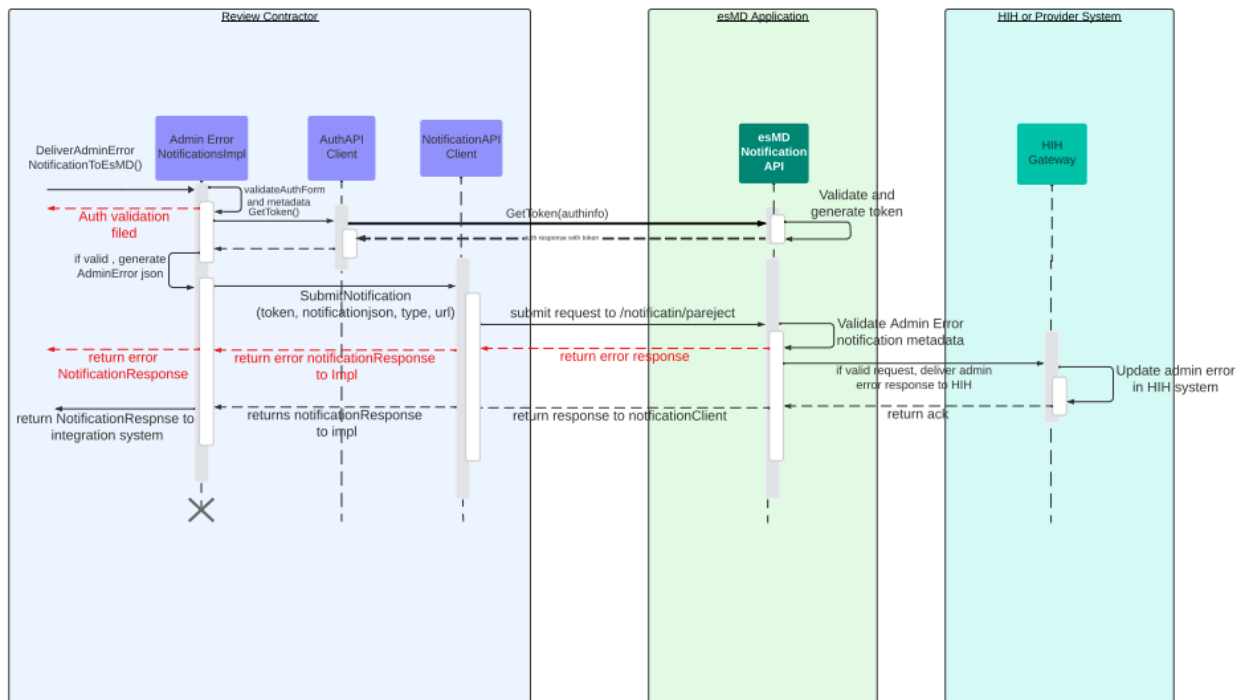
4.3.2 Notification Utility Processing Workflow

Upon receiving an Admin Error Notification from RC's integration system, the Notification Utility performs several critical validation steps to ensure seamless processing in the esMD System.

4.3.2.1 Step-by-Step Workflow

1. **Authentication Validation:**
   - The Notification Utility first validates the authentication information.
   - If the authentication information is valid, the utility proceeds to the next step.

2. **Admin Error Notification Validation:**
   - The utility performs validation on the Admin Error notification to ensure all required information is present and correct.

- These validations ensure that the notification can be processed without any issues in the esMD system.

3. **Handling Validation Results:**
   - **Validation Failure:**
     - If the Admin Error notification validation fails, the Notification Utility sends the error details back to the integration system.
   - **Validation Success:**
     - If the Admin Error notification validation is successful, the Notification Utility sends the notification to the esMD application for further processing.

By following these steps, the Notification Utility ensures that all Admin Error notifications are thoroughly validated and processed efficiently, minimizing the risk of errors and ensuring smooth operation within the esMD system.

4.3.3 esMD Processing Workflow

1. **Schema Validation:**
   - Upon receiving an Admin Error notification, esMD will first perform schema validation to ensure the JSON structure is correct.
   - If the schema validation fails, esMD will send the error details to the RCs.

2. **Custom Validation:**
   - If schema validation is successful, esMD will process each '**esMDTransactionId**' one by one.
   - Custom validation checks will be performed for each transaction.

3. **Notification Delivery:**
   - If custom validations are successful, esMD will prepare and deliver the notification to the Health Information Handlers (HIHs).
   - In case of HIH delivery failures, esMD will inform the RCs in the response and attempt to re-deliver the notification at specified intervals.
   - esMD will persist delivery confirmation details in the database, and RCs can retrieve the latest status of the '**esMDTransactionId**' using the Status API.

4. **Error Response:**
   - If custom validations fail, esMD will capture the error response for the RCs and proceed to process the remaining esMDTransactionIds.
   - After processing all transactions, esMD will send a success or error response for all transactions in the Admin Error notification.

5. **Response Codes**
   - 200 OK**:** All Transaction IDs in the request were processed successfully without any validation failures.
   - 202 Accepted: At least one Transaction ID failed validation.

   Note: Please refer to Table 16: Admin Error API Response for other response codes

6. **Validations**
   - Please refer to 4.3.6 Admin Error Metadata Validations for the list of validations that esMD performs on the Admin Error Notification.

4.3.4 Impact and Benefit to Review Contractors

This technical change will improve the efficiency and reliability of the Admin Error notification process, benefiting RCs.

- **Enhanced Notification Processing:** Allowing multiple 'esMDTransactionId' elements in a single Admin Error notification will streamline the process and reduce the number of individual notifications required.
- **Improved Error Response:** Detailed error reporting and re-delivery attempts ensure that HIHs receive notifications reliably, and RCs are kept informed of the delivery status.

4.3.5 Administrative Response Messages

The esMD system must receive the following Administrative Error responses from the RC if the RC encounters issues with the inbound submissions:

Table 1: Administrative Response Messages

Error Codes	Admin Error Name	Admin Error Description
ESMD_410	Cannot Read Files / Corrupt Files	NA
ESMD_413	Other	If the error Name is 'other', error description is mandatory
ESMD_411	Submission Sent to Incorrect RC	NA
ESMD_412	Virus Found	NA
ESMD_414	Incomplete File	NA
ESMD_415	Unsolicited Response	NA
ESMD_416	Documentation cannot be matched to a case/claim	NA
ESMD_417	Duplicate	NA
GEX10	The date(s) of service on the cover sheet received is missing or invalid	NA
GEX11	The NPI on the cover sheet received is missing or invalid	NA
GEX12	The state where services were provided is missing or invalid on the cover sheet received	NA
GEX13	The Medicare ID on the cover sheet received is missing or invalid	NA
GEX14	The billed amount on the cover sheet received is missing or invalid	NA
GEX15	The contact phone number on the cover sheet received is missing or invalid	NA
GEX16	The beneficiary name on the cover sheet received is missing or invalid	NA
GEX17	The claim number on the cover sheet received is missing or invalid	NA
GEX18	The ACN on the coversheet received is missing or invalid	NA

4.3.6   Admin Error Metadata Validations

4.3.6.1   Notification Utility Validation

Note: The Notification Utility will ensure that the following elements are set before internal validation, as these elements are required in esMD:

- `**notificationType**` should be 'ADMINERROR_V1'.
- `**senderRoutingID**` value should be set in the properties YAML file.

Table 2: Notification Utility Error Codes for Admin Errors

Element Name	Element Type or Default Value	Cardinality	Error Code (if notification utility validation failed)	Error Name
AdminErrorNotificationRoot Input Parameter Elements for Admin Error Notification				
notificationType	'ADMINERROR_V1'	1..1	NOTIFICATION_TYPE_MISSING_ERR_CD	Notification type is required for Admin Error.
senderRoutingID	String	1..1	SENDER_ROUTING_ID_MISSING_ERR_CD	Sender Routing ID is missing or null.
notification	Object	1..*	NOTIFICATION_ELEMENT_MISSING_ERR_CD	Notification object is missing.
esMDTransactionID	String	1..1	ESMD_TRANS_ID_MISSING_ERR_CD	esMD Transaction ID is missing or null.
creationTime	Datetime	1..1	CREATION_TIME_MSSING_ERR_CD	Creation time is missing or null.
submissionTime	Datetime	1..1	SUBMISSION_TIME_MISSING_ERR_CD	Submission Time is missing or null.
errorMessages	Object	1..*	ERROR_MSG_ELEMENT_MISSING_ERR_CD	Error messages object is missing.
errorCode	String	1..1	ERROR_CD_MISSING_ERR_CD	Error code is missing or null.
errorName	String	1..1	ERR_NAME_MISSING_ERR_CD	Error name is missing or null.
errorDescription			ERR_DES_MISSING_ERR_CD	Error description is required for error name element when value is 'Other'
AuthInfo Input Parameter Elements for Authentication Information:				
Username	String	1..1	USERNAME_REQUIRED	Username is required in authInfo.
Password	String	1..1	PASSWORD_REQUIRED	Password is required in authInfo.
ClientKey	String	1..1	CLIENTKEY_REQUIRED	Client Key is required in authInfo.
ClientSecret	String	1..1	CLIENTSECRET_REQUIRED	Client Secret is required in authInfo.

4.3.6.2 esMD Validations

Table 3: Error Codes Sent from esMD to RC

Scenario	Error Codes	Error Name
Missing JSON object in request body	E0001	expected type: JSONObject, found: Null
JSON Schema validation failed for missing notification	E0002	error : object has missing required properties ([\"notification\"])
JSON Schema validation failed for missing notificationType	E0002	error : object has missing required properties ([\"notificationType\"])
JSON Schema validation failed for missing senderRoutingId	E0002	error : object has missing required properties ([\"senderRoutingId\"])
JSON Schema validation failed for missing creationTime	E0002	error : object has missing required properties ([\"creationTime\"])
JSON Schema validation failed for missing submissionTime	E0002	error : object has missing required properties ([\"submissionTime\"])
JSON Schema validation failed for missing esMDTransactionId	E0002	error : object has missing required properties ([\"esMDTransactionId\"])
JSON Schema validation failed for missing errorMessages	E0002	error : object has missing required properties ([\"errorMessages\"])
Invalid Notification Type Value	1100	esMD Validation Error: Notification Type is not a valid type. Correct and resubmit.
Invalid Sender Routing ID Value	617	esMD validation error: Mailbox ID in the response does not match with the Mailbox ID that the request was sent.
Invalid Transaction ID	541	esMD validation error: Transaction ID is invalid. Correct and resubmit.
Invalid Administrative error code	613	esMD validation error : Administrative error code is invalid. Correct and resubmit
Invalid Administrative error name	1243	esMD validation error :Invalid error name received in the admin error response. Correct and resubmit
Error description missing when error name is 'Other'	1242	esMD validation error: Error description is required for error name element when value is 'Other' Please correct and resubmit.
Error Code and Error Name mismatch	1287	esMD validation error: Administrative error code and error name mismatch. Correct and resubmit.
HIH In Active	297	esMD validation error: Either HIH is not active or agreement has expired to receive the response.
RC OID Active check	616	esMD validation error: Intended Recipient OID is deactivated and cannot accept response. Correct and resubmit.
Transaction ID invalid	541	Review Contractor Response Transaction ID does not exist
Inbound process not complete	1240	esMD Validation Error: Unable to accept the Pickup/Admin response/PA Reject response as the inbound process is not completed.
Unable to process RC response	565	esMD Internal System Error: Unable to process your request/response. Please retry later.

The JSON will contain the Status and StatusDescription of the Response and Status that esMD returns to RCs.

Table 4: esMD Status Codes and Descriptions

Scenario	Status	Status Description
Admin error notification retry to HIH	SUCCESS	ADMIN ERROR NOTIFICATION DELIVERY FAILED TO HIH, ESMD WILL RETRY DELIVERY TO HIH LATER AND REVIEW CONTRACTOR CAN REQUEST THE DELIVERY STATUS THROUGH STATUS API.
Admin error validation failure	FAILED	ESMD VALIDATION ERROR. PLEASE CORRECT AND RESUBMIT.
Invalid request received to esMD	FAILED	ESMD RECEIVED INVALID REQUEST. PLEASE CORRECT AND RESUBMIT.
Metadata failure	FAILED	UNABLE TO PARSE THE METADATA. PLEASE CORRECT AND RESUBMIT.
Admin error successfully delivered to the HIH	SUCCESS	SUCCESSFULLY DELIVERED ADMIN ERROR NOTIFICATION TO HIH.
Admin error notification failed to deliver to HIH in XDR and X12 278 formats.	SUCCESS	ADMIN ERROR NOTIFICATION DELIVERY FAILED TO HIH IN XDR AND X12 278 FORMATS, ESMD WILL RETRY DELIVERY TO HIH LATER AND REVIEW CONTRACTOR CAN REQUEST THE DELIVERY STATUS THROUGH STATUS API.
Admin error notification successfully delivered to HIH in XDR and X12 278 format.	SUCCESS	SUCCESSFULLY DELIVERED ADMIN ERROR NOTIFICATION TO HIH IN XDR AND X12 278 FORMATS.
Admin error notification successfully delivered to HIH in X12 278 format, and failed to deliver in XDR format	SUCCESS	DELIVERED ADMIN ERROR NOTIFICATION TO HIH IN X12 278 FORMAT AND DELIVERY FAILED TO HIH IN XDR FORMAT, ESMD WILL RETRY DELIVERY TO HIH LATER AND REVIEW CONTRACTOR CAN REQUEST THE DELIVERY STATUS THROUGH STATUS API.
successfully delivered to HIH in XDR format, and failed to deliver in X12 278 format	SUCCESS	SUCCESSFULLY DELIVERED ADMIN ERROR NOTIFICATION TO HIH IN XDR AND DELIVERY FAILED TO HIH IN X12 278 FORMAT, ESMD WILL RETRY DELIVERY TO HIH LATER AND REVIEW CONTRACTOR CAN REQUEST THE DELIVERY STATUS THROUGH STATUS API.
Admin error notification is successfully processed by esMD	SUCCESS	esMD PROCESSED THE ADMINERROR SUCCESFULLY. The HIH DELIVERY NOTIFICATION WILL BE SENT AFTER THE HIH DELIVERY CONFIRMATION IS RECEIVED.

4.4 PA Reject Response

October 2024 Release Implementation:

The esMD system currently accepts Supporting Documentation (SD) transactions for various lines of businesses (LOBs) including Prior Authorization / Pre-Claim Review (PA/PCR) Requests in both XDR and X12N 278 formats. The supported PA/PCR programs are:

- Non-Emergent, Repetitive Ambulance Transport

- Durable Medical Equipment, Prosthetics, Orthotics, and Supplies (DMEPOS)
- Home-Health Pre-Claim Review (HH-PCR)
- Hospital Outpatient Department (HOPD)
- Inpatient Rehabilitation Facility Pre-Claim Review (IRF-PCR)

Prior Authorization transactions are received by RCs after being processed by esMD. Upon reviewing these prior authorizations, RCs send their decisions on the PA transactions through the RC Client. The RC Client enables Review Contractors (RCs) to report PA Reject Errors using various function methods, utilization purposes, and entry screens. Most RCs have implemented these API methods and integrated them into their UIs. However, a few RCs still rely on the Reject UI input screens provided by esMD.

As part of the October 2024 release, the esMD system will start accepting PA Reject Notifications in a new format. The NotificationType for these requests is "PAREJECT_V1". This update includes changes in the PAReject Notification JSON structure and introduces new validation processes.

Objective: With respect to PA Reject Responses, the objective of this Change Request (CR) is to:

- Assist all remaining RCs in fully incorporating the API methods to support new layout of PA Reject JSON structure and integrating them into their backend systems.
- Remove the reject input screens from the RC Client in the January 2025 release.
- Address a few existing functional limitations.

Scope: To achieve the stated objectives, the esMD Technical Team will:

- Provide the necessary API methods to support the new layout of the PA Reject JSON structure to the RCs.
- Offer related assistance based on the nature of the help needed and/or requested by the RCs.

4.4.1 PA Reject Process Flow

Figure 2: PA Reject Process Flow Diagram provides an overview of the logical flow of the PA Reject Process implemented in the Notification Utility Library.

Figure 2: PA Reject Process Flow Diagram
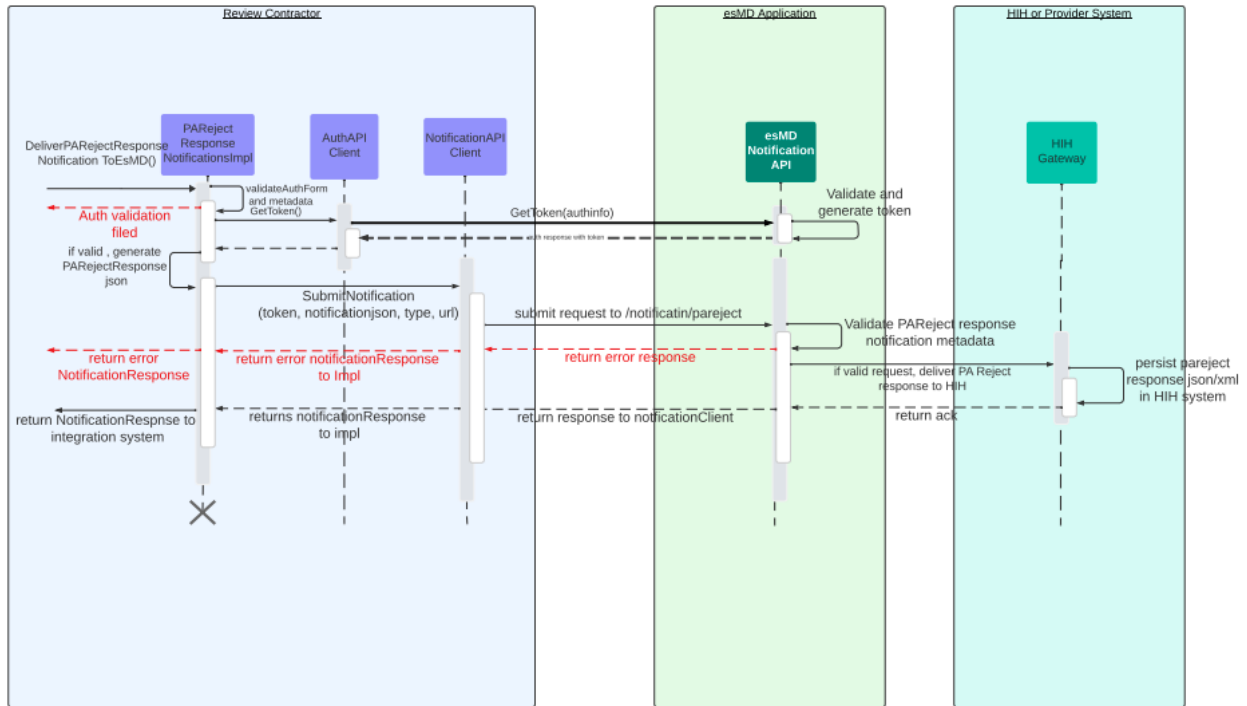
4.4.2 Notification Utility Processing Workflow

Upon receiving a PAReject notification from RC's integration system, the Notification Utility performs several critical validation steps to ensure seamless processing in the esMD system.

Step-by-Step Workflow

1. **Authentication Validation:**
   - The Notification Utility first validates the authentication information.
   - If the authentication information is valid, the utility proceeds to the next step.

2. **PAReject Notification Validation:**
   - The utility performs validation on the PAReject notification to ensure all required information is present and correct.
   - These validations ensure that the notification can be processed without any issues in the esMD system.

3. **Handling Validation Results:**
   - **Validation Failure:**
     - If the PAReject notification validation fails, the Notification Utility sends the error details back to the integration system.
   - **Validation Success:**
     - If the PAReject notification validation is successful, the Notification Utility sends the notification to the esMD application for further processing.

By following these steps, the Notification Utility ensures that all PAReject notifications are thoroughly validated and processed efficiently, minimizing the risk of errors and ensuring smooth operation within the esMD system.

4.4.3 esMD Processing Workflow

1. **Schema Validation:**
   - Upon receiving a PAReject notification, esMD will first perform schema validation to ensure the JSON structure is correct.
   - If the PAReject schema validation fails, esMD will send the error details to the Review Contractors (RCs).

2. **Custom Validation:**
   - If schema validation is successful, esMD will perform custom validation checks.
   - Custom validation includes checking the validity and consistency of the provided data like esMDTrasnactionid, sendroutingid, etc.

4.4.4 Notification Delivery:

- If custom validations are successful, esMD will prepare and deliver the notification to the Health Information Handlers (HIHs).
- In case of HIH delivery failures, esMD will inform the RCs in the response and attempt to re-deliver the notification at specified intervals.
- esMD will persist delivery confirmation details in the database, and RCs can retrieve the latest status of the 'esMDTransactionId' using the Status API.

4.4.5 Error Response:

- If custom validations fail, esMD will send the error response back to the RCs.
- For `esMDTransactionIds` processed successfully without any validation errors, esMD will send a status code of 200.
- For validation failures, esMD will send a status code of 202.

Note: Please refer to Table 16: Admin Error API Response for other status codes.

4.4.6 Response Codes

- 200 OK: For the requests that are processed successfully at esMD side with validation errors.
- 202 Accepted: For any validation failure scenarios.

Note: Please refer Table 16: Admin Error API Response for other response codes.

4.4.7 Validation List

- Please refer to Section 4.4.10 PA Reject Error Validations for the list of validations that esMD performs on the PAReject Notification.

4.4.8   Impact and Benefits to Review Contractors

- **Enhanced Notification Processing:** Accepting PAReject notifications in a new format ensures compatibility with updated requirements and improves processing efficiency.
- **Improved Error Handling:** Detailed error reporting and re-delivery attempts ensure that HIHs receive notifications reliably, and RCs are kept informed of the delivery status.
- This technical change will improve the efficiency and reliability of the PAReject notification process, benefiting RCs.

4.4.9   PA Reject Response Messages

The esMD system must receive the following PA Reject responses listed in Table 5: PA Reject Error Responses from the RC if the RC encounters issues with inbound submissions:

Table 5: PA Reject Error Responses

Category	Error Codes	PA Reject Error Description
Requester	44	First and/or Last name is/are missing
Requester	35	Not a pilot participant State
Requester	51	NPI is missing or invalid
Requester	51	NPI does not match the Name of the Physician
Requester	51	Requester NPI is not on File
Requester	41	Provider is exempted from submitting this PA request
Requester	97	Provider address is missing or invalid
Requester	97	Provider city is missing or invalid
Requester	47	Requester state is missing or invalid
Requester	97	Provider zip is missing or invalid
Beneficiary	58	Date or Birth is missing or invalid
Beneficiary	44	First and/or Last name is/are blank
Beneficiary	66	Gender code is missing or invalid
Beneficiary	73	MBI number and name combination - invalid
Beneficiary	72	MBI number is missing or invalid
Beneficiary	95	Not eligible for service
Patient Event	AF	Diagnosis Code is missing or invalid
Patient Event	AF	Diagnosis code qualifier is missing or invalid
Facility	44	Name is missing
Facility	35	Not a pilot participant state
Facility	51	NPI does not match the name of the physician
Facility	51	NPI is missing or invalid
Facility	47	Provider state is missing or invalid
Facility	51	NPI is sent but not found
Facility	97	Provider address is missing or invalid
Facility	97	Provider city is missing or invalid
Facility	97	Provider zip is missing or invalid
Ordering MD	44	First and/or Last name is missing
Ordering MD	35	Not a pilot participant state
Ordering MD	51	NPI does not match the name of the physician
Ordering MD	51	NPI is missing or invalid
Ordering MD	47	Provider state is missing or invalid
Ordering MD	51	NPI is sent but not found

Category	Error Codes	PA Reject Error Description
Ordering MD	97	Provider address is missing or invalid
Ordering MD	97	Provider city is missing or invalid
Ordering MD	97	Provider zip is missing or invalid
Rendering MD/Supplier	44	First and/or Last name is missing
Rendering MD/Supplier	35	Not a pilot participant state
Rendering MD/Supplier	51	NPI does not match the name of the physician
Rendering MD/Supplier	51	NPI is missing or invalid
Rendering MD/Supplier	47	Provider state is missing or invalid
Rendering MD/Supplier	51	NPI is sent but not found
Rendering MD/Supplier	97	Provider address is missing or invalid
Rendering MD/Supplier	97	Provider city is missing or invalid
Rendering MD/Supplier	97	Provider zip is missing or invalid
Referring Provider	44	First and/or Last name is missing
Referring Provider	35	Not a pilot participant state
Referring Provider	51	NPI does not match the name of the physician
Referring Provider	51	NPI is missing or invalid
Referring Provider	47	Provider state is missing or invalid
Referring Provider	51	NPI is sent but not found
Referring Provider	97	Provider address is missing or invalid
Referring Provider	97	Provider city is missing or invalid
Referring Provider	97	Provider zip is missing or invalid
Operating	44	First and/or Last name is missing
Operating	35	Not a pilot participant state
Operating	51	NPI does not match the name of the physician
Operating	51	NPI is missing or invalid
Operating	47	Provider state is missing or invalid
Operating	51	NPI is sent but not found
Operating	97	Provider address is missing or invalid
Operating	97	Provider city is missing or invalid
Operating	97	Provider zip is missing or invalid
Attending	44	First and/or Last name is missing
Attending	35	Not a pilot participant state
Attending	51	NPI does not match the name of the physician
Attending	51	NPI is missing or invalid
Attending	47	Provider state is missing or invalid
Attending	51	NPI is sent but not found
Attending	97	Provider address is missing or invalid
Attending	97	Provider city is missing or invalid
Attending	97	Provider zip is missing or invalid
Service	AG	Procedure code is missing
Service	AG	Procedure code qualifier is missing or invalid
Service	57	Proposed date/date range is missing or invalid
Service	AG	Procedure Code(s) is invalid

Category	Error Codes	PA Reject Error Description
Service	15	Number of units is missing or invalid
Service	33	Place of service code is missing or invalid
Service	AG	Incorrect modifier for the procedure code
Service	57	Procedure code is repeated – same billing period
Service	57	Date of service is invalid

4.4.10 PA Reject Error Validations

4.4.10.1 Notification Utility Validations

Notification Utility Library validates for the PA Reject Error input elements for any missing required elements and returns the error codes and error messages listed in Table 6: Notification Utility Validations.

Table 6: Notification Utility Validations

Element Name	Sub Element Name	Element Type or Default Value	Cardinality	Error Code (if notification utility validation failed)	Error Name
Input Parameter Elements for PA Reject Notification					
NotificationType	NA	PAREJECT_V1	1..1	NOTIFICATION_TYPE_MISSING_ERR_CD	Notification type is required for PA Reject Error.
SenderRoutingID	NA	String	1..1	SENDER_ROUTING_ID_MISSING_ ERR_CD	Sender Routing ID is missing or null.
EsMDTransactionID	NA	String	1..1	ESMD_TRANS_ID_MISSING_ERR_CD	esMD Transaction ID is missing or null.
requester	rejectreasoncodes. rejectreasoncode	String	0..1	REQUESTER_REASON_CODE_MISSING_ERR_CD	Reject Reason Code is missing for the Requester Object. Please correct and resubmit
requester	rejectreasoncodes. rejectreason	String	0..1	REQUESTER_REJECT_REASON_MISSING_ERR_CD	Error messages object is missing.
beneficiary	rejectreasoncodes.rejectreasoncode	String	0..1	BENEFICIARY_REASON_CODE_MISSING_ERR_CD	Reject Reason Code is missing for the Beneficiary Object. Please correct and resubmit
beneficiary	rejectreasoncodes.rejectreason	String	0..1	BENEFICIARY_REJECT_REASON_MISSING_ERR_CD	Reject Reason is required, if reject reason code is present. Please correct and resubmit
patientEvent	rejectreasoncodes.rejectreasoncode	String	0..1	PATIENT_EVENT_REASON_CODE_MISSING_ERR_CD	Reject Reason Code is missing for the Patient Event Object. Please correct and resubmit

Element Name	Sub Element Name	Element Type or Default Value	Cardinality	Error Code (if notification utility validation failed)	Error Name
patientEvent	rejectreasoncodes.rejectreason	String	0..1	PATIENT_EVENT_REJECT_REASON_MISSING_ERR_CD	Reject Reason is required, if reject reason code is present. Please correct and resubmit
facilityProvider	qualifier	String (Value = FA)	0..1	FACILITY_PROVIDER_QUALIFIER_MISSING_ERR_CD	Qualifier FA is required for the Facility Provider Object. Please correct and resubmit.
FacilityProvider	Rejectreasoncodes	String	0..*	REJECT_REASON_CODE_ELEMENT_MISSING_ERR_CD	Reject reason codes element is missing. Please correct and resubmit.
facilityProvider	rejectreasoncodes.rejectreasoncode	String	0..1	REJECT_REASON_CODE_ELEMENT_MISSING_ERR_CD	Reject Reason Code is missing for the Facility Provider Object.
facilityProvider	rejectreasoncodes.rejectreason	String	0..1	FACILITY_PROVIDER_REASON_CODE_MISSING_ERR_CD	Reject Reason is required, if reject reason code is present in Facility Provider level.
orderingProvider	qualifier	String (Value = DK)	0..1	ORDERING_PROVIDER_QUALIFIER_MISSING_ERR_CD	Qualifier DK is required for Ordering Provider Object. Please correct and resubmit.
orderingProvider	rejectreasoncodes	String	0..*	REJECT_REASON_CODE_ELEMENT_MISSING_ERR_CD	Reject reason codes element is missing. Please correct and resubmit.
orderingProvider	rejectreasoncodes.Rejectreasoncode	String	0..1	ORDERING_PROVIDER_REASON_CODE_MISSING_ERR_CD	Reject Reason Code is missing for the Ordering Provider Object. Please correct and resubmit
orderingProvider	rejectreasoncodes.rejectreason	String	0..1	ORDERING_PROVIDER_REJECT_REASON_MISSING_ERR_CD	Reject Reason is required, if reject reason code is present. Please correct and resubmit
renderingOrSupplierProvider	qualifier	String (Value = SJ)	0..1	RENDERING_OR_SUPPLIER_PROVIDER_QUALIFIER_MISSING_ERR_CD	Qualifier SJ is required for Rendering or Supplier Provider Object. Please correct and resubmit.
renderingOrSupplierProvider	rejectreasoncodes	String	0..*	REJECT_REASON_CODE_ELEMENT_MISSING_ERR_CD	Reject reason codes element is missing. Please correct and resubmit.

Element Name	Sub Element Name	Element Type or Default Value	Cardinality	Error Code (if notification utility validation failed)	Error Name
renderingOr SupplierPro vider	rejectreas oncodes. Rejectrea soncode	String	0..1	RENDERING_OR_SUPPL IER_PROVIDER_REASO N_CODE_MISSING_ERR _CD	Reject Reason Code is missing for the Rendering or Supplier Provider Object. Please correct and resubmit
renderingOr SupplierPro vider	rejectreas oncodes. rejectreas on	String	0..1	RENDERING_OR_SUPPL IER_PROVIDER_REJECT _REASON_MISSING_ER R_CD	Reject Reason is required, if reject reason code is present. Please correct and resubmit
referringPro vider	qualifier	String (Value = DN)	0..1	REFERRING_PROVIDER _QUALIFIER_MISSING_E RR_CD	Qualifier DN is required for Referring Provider Object. Please correct and resubmit.
referringPro vider	rejectreas oncodes.	String	0..*	REJECT_REASON_COD E_ELEMENT_MISSING_E RR_CD	Reject reason codes element is missing. Please correct and resubmit.
referringPro vider	rejectreas oncodes. Rejectrea soncode	String	0..1	REFERRING_PROVIDER _REASON_CODE_MISSI NG_ERR_CD	Reject Reason Code is missing for the Referring Provider Object. Please correct and resubmit
referringPro vider	rejectreas oncodes. rejectreas on	String	0..1	REFERRING_PROVIDER _REJECT_REASON_MIS SING_ERR_CD	Reject Reason is required, if reject reason code is present. Please correct and resubmit
operatingPr ovider	qualifier	String (Value = 72)	0..1	OPERATING_PROVIDER _QUALIFIER_MISSING_E RR_CD	Qualifier 72 is required for Operating Provider Object. Please correct and resubmit.
operatingPr ovider	rejectreas oncodes.	String	0..*	REJECT_REASON_COD E_ELEMENT_MISSING_E RR_CD	Reject reason codes element is missing. Please correct and resubmit.
operatingPr ovider	rejectreas oncodes. Rejectrea soncode	String	0..1	OPERATING_PROVIDER _REASON_CODE_MISSI NG_ERR_CD	Reject Reason is required, if reject reason code is present. Please correct and resubmit
operatingPr ovider	rejectreas oncodes. rejectreas on	String	0..1	OPERATING_PROVIDER _REJECT_REASON_MIS SING_ERR_CD	Attending Provider object is missing. Please correct and resubmit.
attendingPro vider	Qualifier	String (Value = 71)	0..1	ATTENDING_PROVIDER _QUALIFIER_MISSING_E RR_CD	Qualifier 71 is required for Attending Provider Object. Please correct and resubmit.

Element Name	Sub Element Name	Element Type or Default Value	Cardinality	Error Code (if notification utility validation failed)	Error Name
attendingProvider	rejectreasoncodes.	String	0..*	REJECT_REASON_CODE_ELEMENT_MISSING_ERR_CD	Reject reason codes element is missing. Please correct and resubmit.
attendingProvider	rejectreasoncodes.Rejectreasoncode	String	0..1	ATTENDING_PROVIDER_REASON_CODE_MISSING_ERR_CD	Reject Reason Code is missing for Attending Provider Object. Please correct and resubmit
attendingProvider	rejectreasoncodes.Rejectreason	String	0..1	ATTENDING_PROVIDER_REJECT_REASON_MISSING_ERR_CD	Reject Reason is required, if reject reason code is present. Please correct and resubmit
services	procedureCode	Object	1..1	PROCEDURE_CODE_MISSING_ERR_CD	Procedure code is missing in the Service Level.
services	Servicerequest	Object	0..*	SERVICE_REQUEST_MISSING_ ERR_CD	Service level object is missing. Please correct and resubmit.
services	servicerequest.rejectreasoncode	String	0..1	SERVICE_REASON_CODE_MISSING_ERR_CD	Reject Reason Code is missing for Service level Object. Please correct and resubmit
services	servicerequest.rejectreason	String	0..1	SERVICE_REJECT_REASON_MISSING_ERR_CD	Reject Reason is required, if reject reason code is present. Please correct and resubmit

Note: The rejectreasoncode and rejectreason elements in all categories are situational. If the category (root element exists), then these elements are required.

4.4.10.2 esMD Validations

Table 7: Error Codes Sent from esMD to RC lists all the Schema and validation errors performed in esMD for invalid values received in the PA Reject Error Request.

Table 7: Error Codes Sent from esMD to RC

Scenario	Error Codes	Error Description
Missing JSON object in request body	E0001	expected type: JSONObject, found: Null
JSON Schema validation failed for missing notification	E0002	error : object has missing required properties ([\"notification\"])
JSON Schema validation failed for missing notificationType	E0002	error : object has missing required properties ([\"notificationType\"])
JSON Schema validation failed for missing esMDTransactionId	E0002	error : object has missing required properties ([\"esMDTransactionId\"])

Scenario	Error Codes	Error Description
JSON Schema validation failed for missing senderRoutingId	E0002	error : object has missing required properties ([\"senderRoutingId\"])
JSON Schema validation failed for unknown/invalid JSON request tags.	E0002	error : object instance has properties which are not allowed by the schema: [\"senderroutingid1\"]
Duplicate reason codes in PA response	600	esMD validation error: Duplicate Reason Codes found. Correct and resubmit.
Routing ID in the request is not matching with the routing id in the response	617	esMD validation error: Mailbox ID in the response does not match with the Mailbox ID that the request was sent.
RC OID is Inactive	616	esMD validation error: Intended Recipient OID is deactivated and cannot accept response. Correct and resubmit.
Invalid Notification Type	1100	esMD Validation Error: Notification Type is not a valid type. Correct and resubmit.
Invalid TransactionId	541	esMD validation error: Transaction ID is invalid. Correct and resubmit.
Invalid Unique Tracking Number	557	esMD validation error: Review Contractor Unique Tracking Number must be 1 - 50 alphanumeric characters with no special characters. Correct and resubmit.
Invalid Requestor Reject Reason Code	1245	esMD validation error: Reject reason code {0} submitted in Requester is invalid.
Missing Requestor Reject Reason Code	1246	esMD validation error: Reject reason code is required when reject reason is present in Requester level.
Missing Requestor Reject Reason	1247	esMD validation error: Reject Reason is required when reject reason code is present in Requester Level.
Invalid Beneficiary Reject Reason Code	1248	esMD validation error: Reject reason code {0} submitted in Beneficiary is invalid.
Missing Beneficiary Reject Reason Code	1249	esMD validation error: Reject reason code is required when reject reason is present in Beneficiary level
Missing Beneficiary Reject Reason	1250	esMD validation error: Reject Reason is required when reject reason code is present in Beneficiary level.
Invalid Patient Event Reject Reason Code	1251	esMD validation error: Reject reason code {0} submitted in Patient Event is invalid.
Missing Patient Event Reject Reason Code	1252	esMD validation error: Reject reason code is required when reject reason is present in Patient Event level.
Missing Patient Event Reject Reason	1253	esMD validation error: Reject Reason is required when reject reason code is present in Patient Event level.
Missing Facility Provider Qualifier	1281	esMD validation error: Qualifier FA is required for Facility Provider.
Invalid Facility Provider Reject Reason Code	1254	esMD validation error: Reject reason code {0} submitted in Facility Provider is invalid.
Missing Facility Provider Reject Reason Code	1255	esMD validation error: Reject reason code is required when reject reason is present in Facility Provider level.

Scenario	Error Codes	Error Description
Missing Facility Provider Reject Reason	1256	esMD validation error: Reject Reason is required when reject reason code is present in Facility Provider Level.
Missing Ordering Provider Qualifier	1257	esMD validation error: Qualifier DK is required Ordering Provider.
Invalid Ordering Provider Reject Reason Code	1258	esMD validation error: Reject reason code {0} submitted in Ordering provider is invalid.
Missing Ordering Provider Reject Reason Code	1259	esMD validation error: Reject reason code is required when reject reason is present in Ordering Provider level.
Missing Ordering Provider Reject Reason	1260	esMD validation error: Reject Reason is required when reject reason code is present in Ordering Provider Level.
Missing Rendering or SuplierProvider Qualifier	1261	esMD validation error: Qualifier SJ is required for Rendering or Supplier Provider.
Invalid Rendering or Supplier Provider Reject Reason Code	1262	esMD validation error: Reject reason code {0} submitted in Rendering or Supplier provider is invalid.
Missing Rendering or Supplier Provider Reject Reason Code	1263	esMD validation error: Reject reason code is required when reject reason is present in Rendering Or Supplier Provider level.
Missing Rendering or Supplier Provider Reject Reason	1264	esMD validation error: Reject Reason is required when reject reason code is present in Rendering or Supplier Provider Level.
Missing Referring Provider Qualifier	1265	esMD validation error: Qualifier DN is required for Referring Provider.
Invalid Referring Provider Reject Reason Code	1266	esMD validation error: Reject reason code {0} submitted in Referring provider is invalid.
Missing Referring Provider Reject Reason Code	1267	esMD validation error: Reject reason code is required when reject reason is present in Referring Provider level.
Missing Referring Provider Reject Reason	1268	esMD validation error: Reject Reason is required when reject reason code is present in Referring Provider Level.
Missing Operating Provider Qualifier	1269	esMD validation error: Qualifier 72 is required for Operating Provider.
Invalid Operating Provider Reject Reason Code	1270	esMD validation error: Reject reason code {0} submitted in Operating provider is invalid.
Missing Operating Provider Reject Reason Code	1271	esMD validation error: Reject reason code is required when reject reason is present in Operating Provider level.
Missing Operating Provider Reject Reason	1272	esMD validation error: Reject Reason is required when reject reason code is present in Operating Provider Level.
Missing Attending Provider Qualifier	1273	esMD validation error: Qualifier 71 is required for Attending Provider.
Invalid Attending Provider Reject Reason Code	1274	esMD validation error: Reject reason code {0} submitted in Attending provider is invalid.
Missing Attending Provider Reject Reason Code	1275	esMD validation error: Reject reason code is required when reject reason is present in Attending Provider level.

Scenario	Error Codes	Error Description
Missing Attending Provider Reject Reason	1276	esMD validation error: Reject Reason is required when reject reason code is present in Attending Provider Level.
Invalid Reason Code Size	545	esMD validation error: Total number of Reason Codes cannot exceed 25. Reduce the number of Reason Codes and Resubmit.
Invalid Program Reason Code format	1280	esMD validation error: Program reason code has invalid format.
Missing Service Line Number	1283	esMD validation error: Service line number is missing in Service level.
Invalid Service Line Number format	1284	esMD validation error: Invalid Service line number format in Service level.
Duplicate Service Line Number	1285	esMD validation error: Duplicate {0} Service Line number in Service level.
Invalid Service Line Number	1286	esMD validation error: Invalid Service line number {0} in Service level.
Invalid Service Reject Reason Code	1277	esMD validation error: Reject reason code {0} submitted in Service is invalid.
Missing Service Reject Reason Code	1278	esMD validation error: Reject reason code is required when reject reason is present in Service level.
Missing Service Reject Reason	1279	esMD validation error: Reject Reason is required when reject reason code is present in Service Level.

4.4.10.3 Response Status Codes and Descriptions for PAReject Request

Table 8: Error Codes Sent from esMD to RC summarizes the error codes that esMD will use to send the response JSON message which contains the Status and StatusDescription.

Table 8: Error Codes Sent from esMD to RC

Scenario	Status	Status Description
PA Reject Response delivered successfully to HIH	Success	SUCCESSFULLY DELIVERED PA REJECT RESPONSE TO HIH.
PA reject Notification is sent after delivered to HIH	Success	esMD PROCESSED THE PAREJECT SUCCESFULLY. THE HIH DELIVERY NOTIFICATION WILL BE SENT AFTER THE HIH DELIVERY CONFIRMATION IS RECEIVED.
PA Reject Notification delivery failed to HIH	Failed	PA REJECT NOTIFICATION DELIVERY FAILED TO HIH, ESMD WILL RETRY DELIVERY TO HIH LATER AND REVIEW CONTRACTOR CAN REQUEST THE DELIVERY STATUS THROUGH STATUS API.

5 CHG02: Enhancements eMDR Process Steps and Reporting High-Level Details

As part of the CHG02: Enhancements to the eMDR Process Steps to Streamline Functionality and Improve Reporting, enhancements are implemented in the esMD System to processing and configuration. The changes include:

- Content Type Codes are updated for the eMDRs

5.1 Content Type Code Changes

The content type codes for eMDR Post-Pay and eMDR Pre-Pay have been updated as follows:

- **eMDR Post-Pay** and **eMDR Post-Pay others** is changed from **1.6** to **2.6**.
- **eMDR Pre-Pay** is changed from **1.5** to **2.5**.

5.2 Impact of Enhancements

- **Content Type Code:** If your backend system utilizes the content type code, it may encounter issues processing requests with the old codes. There might also be data inconsistencies between new and old data after the October 2024 release.

5.3 PADL/RRL Changes

The esMD system will update the CTC description as 'Letters' instead of RRL for the content type code 20.

As part of this change, the following folder and filenames have been updated in the RC Client application.

Table 9: Data Directories and Filenames

Data Directory	Folder Name	FileName
error	data/error/LETTERS	LETTERS_N_esMDTransactionID_MMDDYY_HHMMSS.json
notification	data/notification/LETTERS	LETTERS_N_esMDTransactionID_MMDDYY_HHMMSS.json
output	Data/output/LETTERS	AWSAUTO5_JDF305961_000_052024_140305_letters.json

5.4 Recommendations

To avoid any issues and ensure data consistency, please follow the below recommendations:

1. **Update Content Type Codes:**
   - Ensure that your system updates the old content type codes (1.5 and 1.6) to the new content type codes (2.5 and 2.6).
   - Update historical data to reflect the new content type codes to prevent data disturbances.
2. **Review Changes to Reports:**

Note: Implementing these updates ensures that the system processes requests correctly and maintains data consistency.

Note: These updates are crucial for the efficient functioning of the esMD system. Adhering to the recommendations ensures seamless integration and processing within systems.

5.5   eMDR Audit Messages

As part of the October 2024 release, some of the Audit Messages for eMDR (Pre-Pay, Post-Pay and Post-Pay-Other) are updated. Except the verbiage of the messages, there are no other changes to the functionality. Table 10: Updated eMDR Audit Messages lists all the existing and new Audit Messages.

Table 10: Updated eMDR Audit Messages

Existing Audit Message	Updated Audit Message
EITHER THE TYPE OF EMDR IS INVALID OR MISSING	TYPE OF EMDR IS MISSING FROM RC
EITHER THE TYPE OF EMDR IS INVALID OR MISSING	TYPE OF EMDR: {0} RECEIVED FROM RC IS INVALID
EITHER THE UNIQUE LETTER ID IS INVALID OR MISSING	UNIQUE LETTER ID IS MISSING FROM RC
EITHER THE UNIQUE LETTER ID IS INVALID OR MISSING	UNIQUE LETTER: {0} RECEIVED FROM RC IS INVALID
EITHER THE LETTER DATE IS INVALID OR MISSING	LETTER DATE IS MISSING FROM RC
EITHER THE LETTER DATE IS INVALID OR MISSING	LETTER DATE:{0} RECEIVED FROM RC IS INVALID
EITHER THE ORGANIZATION NAME/RC DETAILS IS INVALID OR MISSING	THE ORGANIZATION NAME/RC DETAILS IS MISSING FROM RC
EITHER THE ORGANIZATION NAME/RC DETAILS IS INVALID OR MISSING	THE ORGANIZATION NAME/RC DETAILS:{0} RECEIVED FROM RC IS INVALID
EITHER THE RC ADDRESS 1 IS INVALID OR MISSING	RC ADDRESS 1 IS MISSING FROM RC
EITHER THE RC ADDRESS 1 IS INVALID OR MISSING	RC ADDRESS 1 : {0} RECEIVED FROM RC IS INVALID
EITHER THE RC CITY IS INVALID OR MISSING	RC CITY IS MISSING FROM RC
EITHER THE RC CITY IS INVALID OR MISSING	RC CITY: {0} RECEIVED FROM RC IS INVALID
EITHER THE RC STATE IS INVALID OR MISSING	RC STATE IS MISSING FROM RC
EITHER THE RC STATE IS INVALID OR MISSING	RC STATE: {0} RECEIVED FROM RC IS INVALID
EITHER THE RC ZIP CODE IS INVALID OR MISSING	RC ZIP CODE IS MISSING FROM RC
EITHER THE RC ZIP CODE IS INVALID OR MISSING	RC ZIP CODE: {0} RECEIVED FROM RC IS INVALID
EITHER THE SENDER OR ORGANIZATION NAME IS INVALID OR MISSING	SENDER OR ORGANIZATION NAME IS MISSING FROM RC
EITHER THE SENDER OR ORGANIZATION NAME IS INVALID OR MISSING	SENDER OR ORGANIZATION NAME: {0} RECEIVED FROM RC IS INVALID
EITHER THE PROVIDER LAST NAME OR ORGANIZATION NAME IS INVALID OR MISSING	PROVIDER LAST NAME OR ORGANIZATION NAME IS MISSING FROM RC

Existing Audit Message	Updated Audit Message
EITHER THE PROVIDER LAST NAME OR ORGANIZATION NAME IS INVALID OR MISSING	PROVIDER LAST NAME OR ORGANIZATION NAME: {0} RECEIVED FROM RC IS INVALID
EITHER THE PROVIDER ADDRESS 1 IS INVALID OR MISSING	PROVIDER ADDRESS 1 IS MISSING FROM RC
EITHER THE PROVIDER ADDRESS 1 IS INVALID OR MISSING	PROVIDER ADDRESS 1: {0} RECEIVED FROM RC IS INVALID
EITHER THE PROVIDER CITY IS INVALID OR MISSING	PROVIDER CITY IS MISSING FROM RC
EITHER THE PROVIDER CITY IS INVALID OR MISSING	PROVIDER CITY: {0} RECEIVED FROM RC IS INVALID
EITHER THE PROVIDER STATE IS INVALID OR MISSING	PROVIDER STATE IS MISSING FROM RC
EITHER THE PROVIDER STATE IS INVALID OR MISSING	PROVIDER STATE: {0} RECEIVED FROM RC IS INVALID
EITHER THE PROVIDER ZIP CODE IS INVALID OR MISSING	PROVIDER ZIP CODE IS MISSING FROM RC
EITHER THE PROVIDER ZIP CODE IS INVALID OR MISSING	PROVIDER ZIP CODE: {0} RECEIVED FROM RC IS INVALID
EITHER THE PROVIDER NPI IS INVALID OR MISSING	PROVIDER NPI IS MISSING FROM RC
EITHER THE PROVIDER NPI IS INVALID OR MISSING	PROVIDER NP: {0} RECEIVED FROM RC IS INVALID
EITHER THE RESPONSE DATE IS INVALID OR MISSING	RESPONSE DATE IS MISSING FROM RC
EITHER THE RESPONSE DATE IS INVALID OR MISSING	RESPONSE DATE: {0} RECEIVED FROM RC IS INVALID
EITHER THE JURISDICTION OR ZONE INVALID OR MISSING	JURISDICTION OR ZONE IS MISSING FROM RC
EITHER THE JURISDICTION OR ZONE INVALID OR MISSING	JURISDICTION OR ZONE: {0} RECEIVED FROM RC IS INVALID
EITHER THE PROGRAM NAME IS INVALID OR MISSING	PROGRAM NAME IS MISSING FROM RC
EITHER THE PROGRAM NAME IS INVALID OR MISSING	PROGRAM NAME: {0} RECEIVED FROM RC IS INVALID
EITHER THE ANALYSIS ID IS INVALID OR MISSING	ANALYSIS ID IS MISSING FROM RC
EITHER THE ANALYSIS ID IS INVALID OR MISSING	ANALYSIS ID : {0} RECEIVED FROM RC IS INVALID
EITHER THE DOCUMENT CODE IS MISSING OR THE FORMAT IS INVALID	THE FORMAT OF THE DOCUMENT CODE:{0} RECEIVED FROM RC IS INVALID
EITHER THE CLAIM ID IS INVALID OR MISSING	CLAIM ID IS MISSING FROM RC
EITHER THE CLAIM ID IS INVALID OR MISSING	CLAIM ID: {0} RECEIVED FROM RC IS INVALID
EITHER THE BENEFICIARY ID IS INVALID OR MISSING	BENEFICIARY ID IS MISSING FROM RC
EITHER THE BENEFICIARY ID IS INVALID OR MISSING	BENEFICIARY ID: {0} RECEIVED FROM RC IS INVALID
EITHER THE BENEFICIARY NAME IS INVALID OR MISSING	BENEFICIARY NAME IS MISSING FROM RC
EITHER THE BENEFICIARY NAME IS INVALID OR MISSING	BENEFICIARY NAME: {0} RECEIVED FROM RC IS INVALID

Existing Audit Message	Updated Audit Message
RC SYSTEM IDENTIFIER IS EITHER MISSING OR INVALID	SYSTEM IDENTIFIER IS MISSING FROM RC
RC SYSTEM IDENTIFIER IS EITHER MISSING OR INVALID	RC SYSTEM IDENTIFIER: {0} RECEIVED FROM RC IS INVALID
MEDICARE APPEAL NUMBER IS INVALID	MEDICARE APPEAL NUMBER: {0} RECEIVED FROM RC IS INVALID
CSE NUMBER IS INVALID	CSE NUMBER: {0} RECEIVED FROM RC IS INVALID
RC ADDRESS 2 IS INVALID	RC ADDRESS 2: {0} RECEIVED FROM RC IS INVALID
FIRST NAME IS INVALID	PROVIDER FIRST NAME : {0} RECEIVED FROM RC IS INVALID
MIDDLE NAME IS INVALID	PROVIDER MIDDLE NAME : {0} RECEIVED FROM RC IS INVALID
ADDRESS 2 IS INVALID	PROVIDER ADDRESS 2 : {0} RECEIVED FROM RC IS INVALID
LETTER SEQUENCE IS INVALID	LETTER SEQUENCE : {0} RECEIVED FROM RC IS INVALID
PREVIOUS LETTER IS INVALID	PREVIOUS LETTER DATE : {0} RECEIVED FROM RC IS INVALID
REDETERMINATION IS INVALID	REDETERMINATION : {0} RECEIVED FROM RC IS INVALID
RECONSIDERATION IS INVALID	RECONSIDERATION : {0} RECEIVED FROM RC IS INVALID
CONTACT NAME IS INVALID	SUBMISSION CONTACT NAME : {0} RECEIVED FROM RC IS INVALID
CONTACT TEL IS INVALID	SUBMISSION CONTACT TEL : {0} RECEIVED FROM RC IS INVALID
CONTACT FAX IS INVALID	SUBMISSION CONTACT FAX : {0} RECEIVED FROM RC IS INVALID
CONTACT E-MAIL IS INVALID	SUBMISSION CONTACT E-MAIL : {0} RECEIVED FROM RC IS INVALID
THE DOCUMENT CODE FORMAT IS INVALID	THE DOCUMENT CODE FORMAT : {0} RECEIVED FROM RC IS INVALID FOR POSTPAY-OTHER
INQUIRY TEXT 1 IS INVALID	INQUIRY TEXT 1 : {0} RECEIVED FROM RC IS INVALID
INQUIRY TEXT 2 IS INVALID	INQUIRY TEXT 2 : {0} RECEIVED FROM RC IS INVALID
INQUIRY TEXT 3 IS INVALID	INQUIRY TEXT 3 : {0} RECEIVED FROM RC IS INVALID
INQUIRY TEXT 4 IS INVALID	INQUIRY TEXT 4 : {0} RECEIVED FROM RC IS INVALID
DATE OF SERVICE (TO) IS INVALID	DATE OF SERVICE (TO) : {0} RECEIVED FROM RC IS INVALID
PROVIDER NUMBER IS INVALID	PROVIDER NUMBER/PTAN : {0} RECEIVED FROM RC IS INVALID
FAX IS INVALID	PROVIDER FAX : {0} RECEIVED FROM RC IS INVALID
SENDER ADDRESS 1 IS INVALID	SENDER ADDRESS 1 : {0} RECEIVED FROM RC IS INVALID
SENDER CITY IS INVALID	SENDER CITY : {0} RECEIVED FROM RC IS INVALID
SENDER STATE IS INVALID	SENDER STATE : {0} RECEIVED FROM RC IS INVALID

Existing Audit Message	Updated Audit Message
SENDER ZIP CODE IS INVALID	SENDER ZIP CODE : {0} RECEIVED FROM RC IS INVALID
PROVIDER ADDRESS 1 IS INVALID	PROVIDER ADDRESS 1 : {0} RECEIVED FROM RC IS INVALID
PROVIDER STATE IS INVALID	PROVIDER STATE : {0} RECEIVED FROM RC IS INVALID
PROVIDER ZIP CODE IS INVALID	PROVIDER ZIP CODE : {0} RECEIVED FROM RC IS INVALID
PROVIDER CITY IS INVALID	PROVIDER CITY : {0} RECEIVED FROM RC IS INVALID
PROGRAM NAME IS INVALID	PROGRAM NAME : {0} RECEIVED FROM RC IS INVALID
BENEFICIARY ID IS INVALID	BENEFICIARY ID : {0} RECEIVED FROM RC IS INVALID
CLAIM ID IS INVALID	CLAIM ID : {0} RECEIVED FROM RC IS INVALID

5.6   PADL/RRL Error Codes and Error Messages

As part of the October 2024 release, some of the Error Codes and Error Messages for PADL/RRL are updated. All the references of PAD/RRL in the Error Codes and Error Messages are updated to LETTERS. Table 11: Updated PADL/RRL Error Codes and Messages lists all the updated Error Codes and Messages.

Table 11: Updated PADL/RRL Error Codes and Messages

Existing Audit Message	Updated Audit Message
LETTERS_SCHEMA_000	esMD Validation error: {0} Ex: Letter id is missing
LETTERS_001	esMD Validation error: Letter Id exceeds more than 60 characters in letters. Correct and resubmit.
LETTERS_SCHEMA_000	esMD Validation error: {0} Ex: unique letter id is missing
LETTERS_002	esMD Validation error: Unique letter Id exceeds more than 60 characters in letters. Correct and resubmit.
LETTERS_SCHEMA_000	esMD Validation error:{0} Ex: Date of the Letter is missing in letters
LETTERS_002	esMD Validation error: Date of the Letter is invalid in letters
LETTERS_SCHEMA_000	esMD Validation error: {0} Ex: Category code is missing.
LETTERS_003	esMD Validation error: Category code is invalid. Correct and resubmit.
LETTERS_SCHEMA_000	esMD Validation error: {0} Ex: Sub Category code is missing.
LETTERS_004	esMD Validation error: Sub Category code is invalid. Correct and resubmit.

Existing Audit Message	Updated Audit Message
LETTERS_SCHEMA_000	esMD Validation error:{0} Ex: RC Type is missing.
LETTERS_005	esMD Validation error: Rc type exceeds more than 14 characters in letters. Correct and resubmit. Correct and resubmit.
LETTERS_SCHEMA_000	esMD Validation error: {0} Ex: Jurisdiction /Region /Area/ Zone of the RC is missing.
LETTERS_006	esMD Validation error: Jurisdiction /Region /Area/ Zone of the RC exceeds more than 40 characters in letters.. Correct and resubmit.
LETTERS_SCHEMA_000	esMD Validation error: {0} Ex: Name of the review contractor is missing.
LETTERS_007	esMD Validation error: Name of the review contractor exceeds more than 64 characters in letters. Correct and resubmit.
LETTERS_SCHEMA_000	esMD Validation error:{0} Ex: Line of Business is missing.
LETTERS_008	esMD Validation error: Line of Business exceeds more than 10 characters in letters. Correct and resubmit.
LETTERS_SCHEMA_000	esMD Validation Error: {0} Ex: Provider NPI is missing
LETTERS_009	esMD Validation Error: Provider NPI is invalid
LETTERS_SCHEMA_000	esMD Validation Error:{0} Ex: Provider last name or Organization name is missing
LETTERS_010	esMD Validation Error: Provider last name or Organization name exceeds maximum allowable of 100 characters in Letters
LETTERS_SCHEMA_000	esMD Validation error: {0} Ex: Provider Address 1 is missing in Letters.
LETTERS_011	esMD Validation error: Provider Address 1 exceeds maximum allowable of 75 characters in Letters. Correct and resubmit.
LETTERS_SCHEMA_000	esMD Validation Error:{0} Ex: Provider last name or Organization name is missing
LETTERS_012	Review Information <<Iteration_no>>: esMD Validation error: Decision rationale exceeds maximum allowable of 5000 characters in Letters. Correct and resubmit.

5.7   PADL/RRL Email Alerts

As part of the October 2024 release, some of the Email Alerts for PADL/RRL are updated. All the references of PAD/RRL in the Email Subject and Body are updated to LETTERS. Table 12: Updated PADL/RRL Email Alerts lists all the updated Error Codes and Messages.

Table 12: Updated PADL/RRL Email Alerts

Existing Audit Message	Updated Audit Message
Environment <<environmentType>>: NPI received in the <<LETTERS>> is not registered with the NPPES	Message: The NPI received in the LETTERS is not registered with the NPPES so failed processing.
Environment <<environmentType>>: PDF is Missing for <<LETTERS>>	Notification Type: PDF Letter is Missing in <<LETTERS>>
	Message: <<LETTERS>> PDF File is not embedded in the JSON.
Environment <<environmentType>>: esMD system failed to transmit the << LETTERS >> to HIH after 3 retries.	Notification Type: <<LETTERS>> Failed Transmit to HIH after 3 successful retries
	Message: << LETTERS>> Failed Transmit to HIH. esMD Transaction ID:<<TransactionID> Submission Timestamp: <<Timestamp>> Letter ID: <<LetterID>> HIH OID: <<HIH OID> CTC: <<CTC>> NPI: <<NPI>>
Environment <<environmentType>>: For Letters, esMD received Invalid Transaction ID in the eMDR or LETTERS Provider Delivery Notification from Provider.	Notification Type: Letters: Invalid Transaction ID received in the Provider Delivery Notification eMDR or LETTERS
	Message: For Letters, the Transaction ID <<TransactionID>> received in the body of the eMDR or LETTERS Provider Delivery Notification is invalid.
Environment <<environmentType>>:For Letters, esMD received Duplicate Transaction ID in the <<LETTERS>> Provider Delivery Notification from Provider.	Notification Type: For Letters, Duplicate Transaction ID in the<<LETTERS>> Provider Delivery Notification
	Message: For Letters, The Transaction ID <<TransactionID>> received in the body of the << LETTERS>> Provider Delivery Notification is duplicate.

6 CHG02: Reconciliation Report Enhancements High-Level Details

As part of the CHG02: Enhancements to the eMDR Process Steps to Streamline Functionality and Improve Reporting, several enhancements and updates have been made to improve clarity, functionality, and user experience with the esMD System Reconciliation Report. These changes include:

- **Updating Terminology:** Revising terms used within the system for better alignment and understanding.
- **Sorting Functionality:** Enhancing the sorting capabilities to improve data organization and accessibility.
- **Updating Column Labels:** Modifying labels of some columns for better clarity and consistency.
- **Categorization and Display Based on Content Type Codes:** Implementing changes to how data is categorized and displayed based on content type codes.

For more detailed information, please refer to Section 8 Reconciliation Report.

7 Technical Details

7.1 Notification Utility Library

This section focuses on the implementation of the Notification Utility Library developed in Java and C sharp (.NET framework) languages to enable real-time Admin Error and PA Reject notification delivery to esMD and to receive the status responses.

7.1.1 Version information

For the October 2024 release, the Java and .NET software version numbers required to use the Notification Utility Library are as follows:

- Java Development Kit (JDK) Version 1.8 or higher
- .NET Framework Version 4.5 or higher

Note: For the October 2024 release, the software version numbers for the RC Client Java API and .NET are as follows for RCs that wish to continue using the RC Client:

- Java API Version: 15
- .NET Version: 15

7.1.2 Implementation Steps

1. **Authentication Details Management:**
   - Securely store authentication details (username, password, client key, client secret) in the RC's security manager or databases.
2. **Library Integration:**
   - Integrate the NotificationUtility library into the RC's backend system.
   - Ensure 'AuthAPIClient' is used to obtain the bearer token.
   - Use 'NotificationAPIClient' to submit notifications to esMD.
3. **Code Modifications:**
   - Update the backend system to call `GetToken` for authentication.
   - Modify existing notification submission processes to use `SubmitNotification` method of the NotificationUtility library.
   - Handle the notification responses and update the backend system accordingly.
4. **Testing:**
   - Thoroughly test the integration to ensure that notifications are submitted correctly, and responses are handled appropriately.
   - Verify the security of the authentication details and the integrity of the notification submission process.

7.1.3 Functionality

The Notification Utility Library provides several essential functions for Review Contractors (RCs) to interact with the esMD system. This library facilitates the submission of Admin Error and PA Reject notifications and the retrieval of their statuses.

Key Functions

1. **Submission of Notifications**

   - The Notification Utility Library allows RCs to submit Admin Error and PA Reject notification requests to esMD and receive appropriate responses.

2. Integration and Usage

- **Source Code:** RCs must download the Java or .NET source code, build the jar or library file, and integrate it into their backend systems.
- **Method Calls:** The provided methods in '**AdminErrorNotificationsImpl**', '**PARejectResponseNotificationsImpl**', and '**StatusImpl**' must be used to submit PA Reject and Admin Error responses and to retrieve status updates.

3. Input Validation

- **Validation Process:** Inputs are validated before submitting the request. If any required inputs are missing, an appropriate error message is returned.
- **Error Codes:** Please refer to Figure 5: Notification Utility Property File.

4. Bearer Token Requirement

- RCs must provide the bearer token obtained from the AuthAPIClient's getToken method. This token, along with the Admin Error or PA Reject response notification JSON, should be passed as input parameters to the NotificationAPIClient's SubmitNotification method.

5. Status Retrieval

- The **RetrieveLatestStatusByTransactionId** method in the StatusAPIClient is used to retrieve the latest status of the esMDTransactionId in case of any HIH delivery failures.

6. Reference to API Methods

- **.NET API Methods:** Please refer to Table 13: .NET API Methods for a detailed description of the .NET API methods.
- **Java API Methods:** Please refer to Table 14: JAVA API Methods for a detailed description of the Java API methods.

7. Configuration Properties

- All application-related properties, such as senderRoutingId, URLs, error codes, and scope, are stored in the api-properties.yaml file. For error codes and detailed configuration, please refer to Figure 5: Notification Utility Property File.

By following these guidelines and utilizing the Notification Utility Library, RCs can efficiently manage their interactions with the esMD system, ensuring smooth and accurate submission of notifications and retrieval of status updates.

Figure 3: Example Code (C sharp)

```
var notificationClient = new NotificationAPIClient();
string notificationJson =
"{\"notificationType\":\"ADMINERROR_V1\",\"senderRoutingId\":\"ESD002\",\"no
tification\":[{\"esMDTransactionId\":[\"WEB0002251201EC\"],\"creationTime\":
\"2022-07-14T14:46:32.9061234-04:00\",\"submissionTime\":\"2022-07-
14T14:46:32.9031824-
04:00\",\"errorMessages\":[{\"errorCode\":\"GEX13\",\"errorName\":\"The
Medicare ID on the cover sheet received is missing or
invalid\",\"errorDescription\":\"\"}]}]}";
string response = notificationClient.SubmitNotification(bearerToken,
notificationJson);
```

Figure 4: Notification Utility Class Diagram
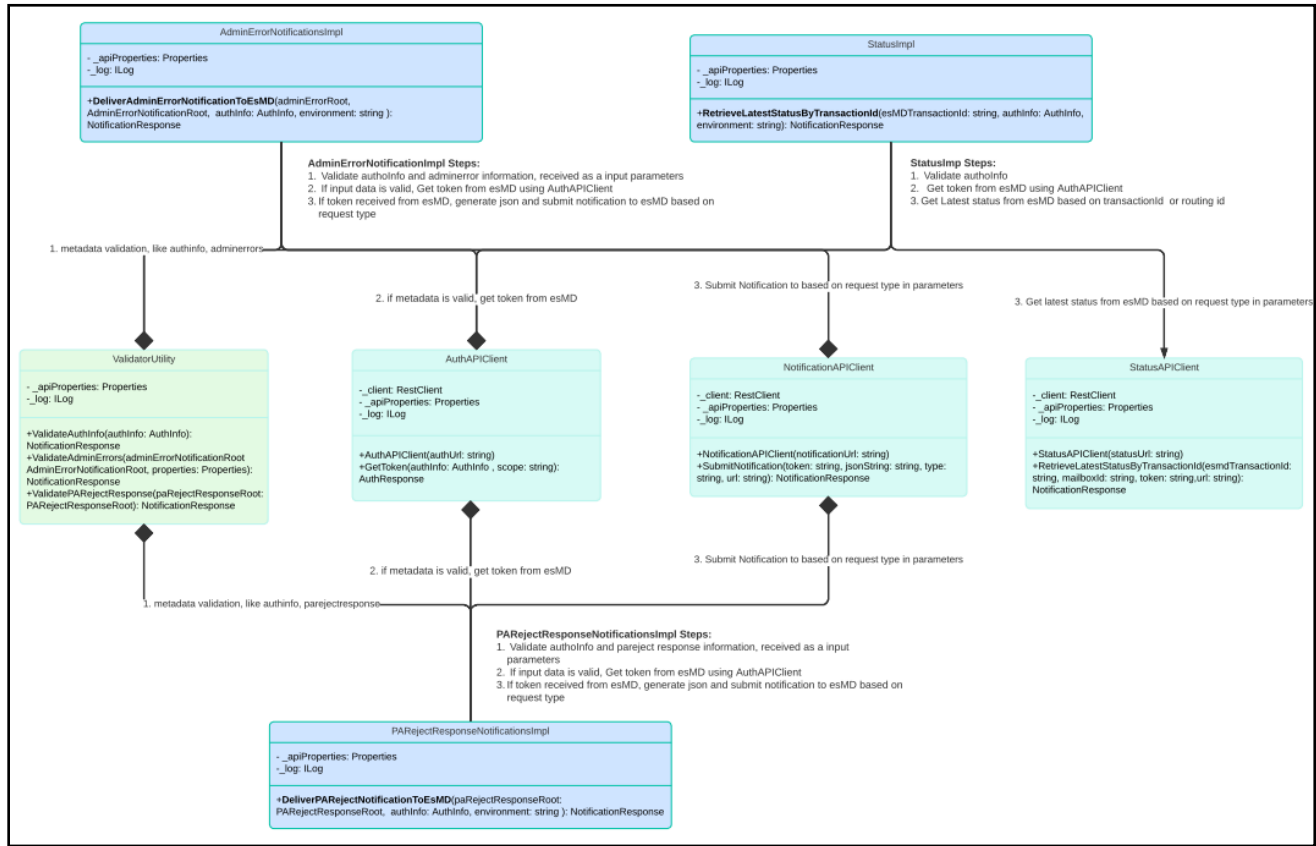
7.1.4   .NET API Methods

Table 13: .NET API Methods describes the methods available to generate and send the Admin and PA Reject requests using the .NET RC Client Library.

Table 13: .NET API Methods

No.	Methods	Description
1.	NotificationResponse SubmitNotification(string token, string jsonString, string type, string url)	Used to send Admin and PA Reject requests with the below inputs. **Input:** • token: The bearer token obtained from 'AuthAPIClient'. • type: NotificationType (AdminError or PAReject) • jsonString: The JSON string representing the Admin Error or PA reject response notification. • url: Admin Error or PA Reject URL from the properties file. **Output:** • NotificationResponse: Returns the notification response from esMD.

No.	Methods	Description
2.	AuthResponse GetToken(AuthInfo authInfo, string scope)	Used to get an authentication token from esMD Auth API using userid, password, client id, client secret, scope and mailboxid. **Input:** • AuthInfo: The AuthInfo object with Username, Password, ClientKey and ClientSecret. • Scope: Scope value specific to Admin or PA Reject • NotificationJson: The JSON string representing the admin error or PA reject response notification. **Output:** • AuthResponse: Returns access_token or error.
3	NotificationResponse RetrieveLatestStatusByTransactionId(string esMDTransactionId, AuthInfo authInfo, string environment)	Used to retrieve the latest status based on transactionId. **Input:** • esMDTransactionId: esMDTransactionId of the request submitted. • AuthInfo: The AuthInfo object with Username, Password, ClientKey and ClientSecret. • environment: The environment in which the status has to be retrieved. **Output:** • AuthResponse: Returns access_token or error
Note: For the below methods, the names of the classes, interfaces, method signatures, variables, folder names and file names are updated from RRL to Letters. No changes in the functionality.		
4	public MessageDTO submitLetters(LettersDTO lettersbean, FileInfo lettersPDFFile)	This method is used to upload the RRL JSON file to esMD. Parameters: 1. lettersbean – Letters Bean object. 2. lettersPDFFile – PDF File location.

5	public interface IESMDSubmitLetters {
	    MessageDTO submitLetters(LettersDTO lettersbean, FileInfo lettersPDFFile);
	    }
		The interface implements the submitLetters method.

6	Public class LettersDTO	LettersDTO class
7	public class ESMDSubmitLettersImpl : IESMDSubmitLetters	ESMDSubmitLettersImpl class

Note: The value of 'message' element in the NotificationResponse will be null for Admin and PAReject response notifications. However, the value for 'message' element will be present for the Status notification response.

7.1.5 JAVA API Methods

Table 14: JAVA API Methods describes the methods available to generate and send the Admin and PA Reject requests to esMD using the Java RC Client Library.

Table 14: JAVA API Methods

No.	Methods	Description
1.	NotificationResponse SubmitNotification(string token, string jsonString, string type, string url)	Used to send Admin and PA Reject requests with the below inputs. **Input:** • token: The bearer token obtained from 'AuthAPIClient'. • type: NotificationType (AdminError or PAReject) • jsonString: The JSON string representing the admin error or PA reject response notification. • url: Admin Error or PA Reject URL from the properties file. **Output:** • NotificationResponse: Returns the notification response from esMD.
2.	AuthResponse GetToken(AuthInfo authInfo, string scope)	Used to get an authentication token from esMD Auth API using userid, password, client id, client secret, scope and mailboxid **Input:** • AuthInfo: The AuthInfo object has Username, Password, ClientKey and ClientSecret'. • Scope: Scope value specific to Admin or PA Reject • NotificationJson: The JSON string representing the admin error or PA reject response notification. **Output:** • AuthResponse: Returns access_token or error
3	NotificationResponse RetrieveLatestStatusByTransactionId(string esMDTransactionId, AuthInfo authInfo, string environment)	Used to retrieve the latest status based on transactionId. **Input:** • esMDTransactionId: esMDTransactionId of the request submitted. • AuthInfo: The AuthInfo object with Username, Password, ClientKey and ClientSecret'. • environment: The environment in which the status has to be retrieved. **Output:** • AuthResponse: Returns access_token or error
Note: For the below methods, the names of the classes, interfaces, method signatures, variables, folder names and file names are updated from RRL to Letters. No changes in the functionality.		

No.	Methods	Description
4	public Message submitLetters(LettersBean lettersbean, File lettersPDFFile) throws Exception	This method is used to upload the RRL JSON file to esMD. Parameters: 1. letterslbean – Lettters Bean object. 2. lettersPDFFile – PDF File location.
5	Public interface ESMDSubmitLetters	The ESMDSubmitLetters Interface defines the methods to be implemented for processing Letters.
6	Public class ESMDSubmitLettersImpl	The ESMDSubmitLettersImpl Class implements the methods in ESMDSubmitLetters Interface to process and submit Letters to esMD.

Note: The value of the 'message' element in the NotificationResponse will be null for Admin and PAReject response notifications. However, the value for the 'message' element will be present for the Status notification response.

7.2   Notification API URL Details

7.2.1   Admin Error URL

Operation Name: /api/esmd/v1/objects/notification/admin

Method: POST

Authentication Required: Yes

Endpoint URL: https://val.cpiapigateway.cms.gov/api/esmd/v1/objects/notification/admin

Note: This is a sample URL for reference

7.2.2   PA Reject URL

Operation Name: /api/esmd/v1/objects/notification/pareject

Method: POST

Authentication Required: Yes

Endpoint URL: https://val.cpiapigateway.cms.gov/api/esmd/v1/objects/notification/admin

7.3   Request Header Attributes

The request header attributes are listed in Table 15: Notification API (Admin Error) – Request Header Attributes.

Table 15: Notification API (Admin Error) – Request Header Attributes

Attribute	Required	Data Type	Length	Comments
Content-Type	R	Varchar	16	application/json
Authorization	R	Varchar	2000	Bearer Token

7.4   Admin Error/PA Reject API Response

The response will vary based on the user's request. The system will validate the metadata elements sent in the request and send the response according to the request using the response codes in Table 16: Admin Error API Response based on the checks.

Table 16: Admin Error API Response

Scenario	Response codes
Success	200
Metadata failure	202
Bad request	400
Unauthorized Access	401
Forbidden	403
Not Found	404
Internal Server error	500

Note: In case of any of the failures (401, 403, 404 and 500), the user requires to reach out the esMD Service Desk esMD_Support@cms.hhs.gov to resolve the issues.

7.5   Notification utility Property File

All the properties used by the Notification Utility are stored in the api-properties.yaml file illustrated by Figure 5: Notification Utility Property File.

Figure 5: Notification Utility Property File

```yaml
application:
  name: notifications-utility
userinfo:
  mailboxid: ESD002

api:
  environment:
    dev: https://dev.cpiapigateway.cms.gov/api/esmd/v1
    val: https://val.cpiapigateway.cms.gov/api/esmd/v1
    uat: https://val.cpiapigateway.cms.gov/api/esmd/ext/v1
    prod: https://cpiapigateway.cms.gov/api/esmd/ext/v1
  url:
    auth: /auth/generate
    pa-reject-notification: /objects/notification/pareject
    admin-error-notification: /objects/notification/admin
    notification-status: /objects/status/rc
  scope:
    notification: rc/notification
    status: rc/status

errorCodes:
  NOTIFICATION_TYPE_MISSING_ERR_CD: "Notification type is missing or null."
  SENDER_ROUTING_ID_MISSING_ERR_CD: "Sender Routing ID is missing or null."
  NOTIFICATION_ELEMENT_MISSING_ERR_CD: "Notification object is missing."
  ESMD_TRANS_ID_MISSING_ERR_CD: "esMD Transaction ID is missing or null."
  CREATION_TIME_MSSING_ERR_CD: "Creation time is missing or null."
  SUBMISSION_TIME_MISSING_ERR_CD: "Submission Time is missing or null."
  ERROR_MSG_ELEMENT_MISSING_ERR_CD: "Error messages object is missing or null."
  ERROR_CD_MISSING_ERR_CD: "Error code is missing or null."
```

ERR_NAME_MISSING_ERR_CD: "Error name is missing or null."
ERR_DES_MISSING_ERR_CD: "Error description is required for error name element when value is 'Other'."
EMPTY_ADMINERROR_RESPONSE: "Admin Error object is missing or null."
REQTR_REASON_CD: "Reject Reason Code is missing for the Requester Object."
REQTR_REASON: "Reject Reason is required, if reject reason code is present."
BENEFICIARY_REASON_CD: "Reject Reason Code is missing for the Beneficiary Object."
BENEFICIARY_REASON: "Reject Reason is required, if reject reason code is present."
PATIENT_EVENT_REASON_CD: "Reject Reason Code is missing for the Patient Event Object."
PATIENT_EVENT_REASON: "Reject Reason is required, if reject reason code is present."
FACILITY_PROVIDER_QUALIFIER_CD: "Qualifier FA is required for the Facility Provider Object."
FACILITY_PROVIDER_REASON_CD: "Reject Reason Code is missing for the Facility Provider Object."
FACILITY_PROVIDER_REASON: "Reject Reason is required, if reject reason code is present."
ORDERING_PROVIDER_QUALIFIER_CD: "Qualifier DK is required for Ordering Provider Object."
ORDERING_PROVIDER_REASON_CD: "Reject Reason Code is missing for the Ordering Provider Object."
ORDERING_PROVIDER_REASON: "Reject Reason is required, if reject reason code is present."
RENDERING_PROVIDER_QUALIFIER_CD: "Qualifier SJ is required for Rendering or Supplier Provider Object."
RENDERING_PROVIDER_REASON_CD: "Reject Reason Code is missing for the Rendering or Supplier Provider Object."
RENDERING_PROVIDER_REASON: "Reject Reason is required, if reject reason code is present."
REFERRING_PROVIDER_QUALIFIER_CD: "Qualifier DN is required for Referring Provider Object."
REFERRING_PROVIDER_REASON_CD: "Reject Reason Code is missing for the Referring Provider Object."
REFERRING_PROVIDER_REASON: "Reject Reason is required, if reject reason code is present."
OPERATING_PROVIDER_QUALIFIER_CD: "Qualifier 72 is required for Operating Provider Object."
OPERATING_PROVIDER_REASON_CD: "Reject Reason Code is missing for the Operating Provider Object."
OPERATING_PROVIDER_REASON: "Reject Reason is required, if reject reason code is present."
ATTENDING_PROVIDER_QUALIFIER_CD: "Qualifier 71 is required for Attending Provider Object."
ATTENDING_PROVIDER_REASON_CD: "Reject Reason Code is missing for Attending Provider Object."
ATTENDING_PROVIDER_REASON: "Reject Reason is required, if reject reason code is present."
EMPTY_PAREJECT_RESPONSE: "PA Reject Response object is missing or null."

7.6   Admin Error Notification JSON Structure

The 'AdminError' notification JSON structure now allows for multiple 'esMDTransactionId' entries within the 'esMDTransactionId' element. Below is the structure for the request and response.

Figure 6: Admin Error Request JSON Structure

```
{
   "notificationType": "ADMINERROR_V1",
   "senderRoutingId": "ESD002",
   "notification": [
      {
         "esMDTransactionId": ["AIB0007179960EC", "XIR0007148637E1"],
         "creationTime": "2022-07-14T14:46:32.9061234-04:00",
         "submissionTime": "2022-07-14T14:46:32.9031824-04:00",
         "errorMessages": [
            {
               "errorCode": "GEX13",
               "errorName": "The Medicare ID on the cover sheet received is
missing or invalid",
               "errorDescription": ""
            }
         ]
      }
   ]
}
```

Figure 7: Admin Error Response JSON Structure

```
{
   "senderRoutingId": "ESD002",
   "statusDetails": [
      {
         "esMDTransactionId": "AIB0007179960EC",
         "contenttypecd": "7",
         "parentTransactionId": "AIB0007179960EC",
         "deliveryType": "F",
         "status": "FAILED",
         "statusDescription": "ESMD VALIDATION ERROR. PLEASE CORRECT AND
RESUBMIT.",
         "errorMessages": [
            {
               "errorCode": "1240",
               "errorName": "",
               "errorDescription": "esMD Validation Error: Unable to accept the
Pickup/Admin response/PA Reject response as the inbound process is not
completed."
            }
         ]
      },
      {
         "esMDTransactionId": "XIR0007148637E1",
         "contenttypecd": "7",
         "parentTransactionId": "XIR0007148637E1",
         "deliveryType": "N",
         "status": "Success",
```

```
        "statusDescription": "ADMIN ERROR NOTIFICATION DELIVERY FAILED TO HIH,
ESMD WILL RETRY DELIVERY TO HIH LATER AND REVIEW CONTRACTOR CAN REQUEST THE
DELIVERY STATUS THROUGH STATUS API.",
        "errorMessages": []
      }
   ]
}
```

7.7   PA Reject Notification JSON Structure

The `PAReject` notification JSON structure is detailed below. This structure must be followed for the esMD system to process the notifications correctly.

Figure 8: PA Reject Notification JSON Structure

```
{
    "_comment": "XDR PA Reject JSON structure",
    "notificationtype": "PAREJECT_V1",
    "esmdtransactionid": "WLY0033083397EC",
    "utn": null,
    "requester": {
        "_comment": "Requester Reject Reason Codes here",
        "rejectreasoncodes": [
            {
                "rejectreasoncode": "47",
                "rejectreason": "Requester state is missing or invalid"
            }
        ]
    },
    "beneficiary": {
        "_comment": "Beneficiary Reject Reason Codes here",
        "rejectreasoncodes": [
            {
                "rejectreasoncode": "",
                "rejectreason": ""
            }
        ]
    },
    "patientevent": {
        "_comment": "Patient Event Reject Reason Codes here",
        "rejectreasoncodes": [
            {
                "rejectreasoncode": "",
                "rejectreason": ""
            }
        ]
    },
    "facilityprovider": {
        "_comment": "Facility Provider Reject Reason Codes here",
        "qualifier": "FA",
        "rejectreasoncodes": [
            {
                "rejectreasoncode": "",
                "rejectreason": ""
            }
        ]
```

```
    },
    "orderingprovider": {
        "_comment": "Ordering Provider Reject Reason Codes here",
        "qualifier": "DK",
        "rejectreasoncodes": [
            {
                "rejectreasoncode": "",
                "rejectreason": ""
            }
        ]
    },
    "renderingorsupplierprovider": {
        "_comment": "rendering Or Supplier Provider Reject Reason Codes here",
        "qualifier": "SJ",
        "rejectreasoncodes": [
            {
                "rejectreasoncode": "",
                "rejectreason": ""
            }
        ]
    },
    "referringprovider": {
        "_comment": "Referring Provider Reject Reason Codes here",
        "qualifier": "DN",
        "rejectreasoncodes": [
            {
                "rejectreasoncode": "",
                "rejectreason": ""
            }
        ]
    },
    "operatingprovider": {
        "_comment": "Operating Provider Reject Reason Codes here",
        "qualifier": "72",
        "rejectreasoncodes": [
            {
                "rejectreasoncode": "",
                "rejectreason": ""
            }
        ]
    },
    "attendingprovider": {
        "_comment": "Attending Provider Reject Reason Codes here",
        "qualifier": "71",
        "rejectreasoncodes": [
            {
                "rejectreasoncode": "",
                "rejectreason": ""
            }
        ]
    },
    "programreasoncodes": [
        ""
    ],
    "services": [
        {
            "_comment": "Supports for sigle service or multiple service also",
```

```json
            "procedurecode": "",
            "servicetracenumber": "",
            "servicerequest": [
                {
                    "rejectreasoncode": "",
                    "rejectreason": ""
                }
            ],
            "programreasoncodes": [
                ""
            ],
            "modifiednoofunits": "",
            "modifieddateordaterange": ""
        }
    ]
}
```

Note: The '_comment' element in all sections of the JSON file is included for understanding purposes only. The actual file do not contain the '_comment' element.

Figure 9: PA Reject Response – esMD Validation Failed JSON

```json
{
    "senderRoutingId": "ES9999",
    "statusDetails": [
        {
            "esMDTransactionId": "LZD0004608701EC",
            "contenttypecd": "",
            "parentTransactionId": "",
            "deliveryType": "F",
            "status": "FAILED",
            "statusDescription": "ESMD VALIDATION ERROR. PLEASE CORRECT AND
RESUBMIT.",
            "errorMessages": [
                {
                    "errorCode": "541",
                    "errorName": "",
                    "errorDescription": "esMD validation error: Transaction ID
is invalid. Correct and resubmit."
                }
            ]
        }
    ]
}
```

Figure 10: PA Reject Success Response JSON

```json
{
    "senderRoutingId": "ES9999",
    "statusDetails": [
        {
            "esMDTransactionId": "LSH0007180687EC",
            "contenttypecd": "8.3",
            "parentTransactionId": "LSH0007180687EC",
            "deliveryType": "N",
            "status": "Success",
```

```
        "statusDescription": "SUCCESSFULLY DELIVERED PA REJECT RESPONSE TO
HIH.",
        "errorMessages": []
    }
  ]
}
```

8 Reconciliation Report

In the upcoming October 2024 release, several enhancements and updates are planned for the Health Information Handlers and Review Contractors system. These changes aim to improve clarity, functionality, and user experience within the system. The below points outline the specific technical details of these changes.

1. **Update of Terminology:**
   - The terminology used within the system will undergo revision for better alignment and clarity. Specifically, the text referring to "Health Information Handlers and Review contractors" will be updated to "Sender" and "Receiver" respectively.

2. **Sorting of Recon Report Transactions:**
   - The transactions displayed in the Recon report will now be organized based on the Submission date in descending order. This change aims to streamline the viewing experience and prioritize the most recent transactions for users.

3. **Column Adjustment in Recon Report:**
   - The column titled "CTC Description/Response Type category" will undergo modification for simplicity and consistency. Henceforth, it will be labeled as "CTC Description" only, providing a clearer representation of the content.

4. **Enhanced Display of eMDR Transactions:**
   - The Recon Report will receive enhancements regarding the display of eMDR (Electronic Medical Device Reporting) transactions. Specifically, pre-pay transactions with Content Type Code 2.5 and post-pay transactions with Content Type Code 2.6 will be displayed in the Report.

5. **Categorization of Content Type Code 20 Transactions:**
   - Transactions with Content Type Code 20 will be categorized under 'Letters'. Depending on the specific category of these letters, the transaction type will vary accordingly:
     - For the default category "Letters", the transaction type will be labeled as "Letter".
     - For category 20.1, the transaction type will be "PA Decision Letter".
     - For category 20.2, the transaction type will be "PA Rejection Letter".
     - For category 20.4, the transaction type will be "Review Results Letter".

6. **Display of Content Type Code 1 Transactions:**
   - Transaction Type for transactions with Content Type Code 1 will be displayed based on the Response Type Category:
   - For the transactions without a response type category the column "transaction type" will be displayed as 'XDR-ADR with Medical Documentation'.

   Ex: XDR-ADR with Medical Documentation.

   - For the transactions with a response type category the column "transaction type" will be displayed as 'XDR-ADR with Medical Documentation - with Routing Assist'.

See Figure 11: Reconciliation Report for the sample layout of the report. The changes are planned for the October 2024 release.

Figure 11: Reconciliation Report

Appendix A: Record of Changes

Table 17: Record of Changes

Version Number	Date	Author/Owner	Description of Change
2.0	07/03/2024	Venkata Gurram	Final Version of the October AR2024.10.0 release RC Technical Release Changes. Version 2.0 contains the following updates: 1. Added Section(s): 5.5, and 5.6. 2. Added Table(s): 10, 11, and 12. 3. Updated Table(s): 3, 7, 9, 13, 14, and 17.
1.0	06/07/2024	Srini Eadara, Venkata Gurram, Srilakshmi Akula, Suresh Inti, Akhil Bandi	Initial delivery of release AR2024.10.0 (Preliminary)

Appendix B: Acronyms

Table 18: Acronyms

Acronym	Literal Translation
API	Application Programming Interface
ADR	Additional Documentation Request
AUTH	Authentication
CMS	Centers for Medicare & Medicaid Services
CR	Change Request
eCHIMP	Electronic Change Information Management Portal
esMD	Electronic Submission of Medical Documentation
eMDR	Electronic Medical Documentation Request
HIH	Health Insurance Handlers
JDK	Java Development Kit
JSON	JavaScript Object Notation
MAC	Medicare Administrative Contractor
RAC	Recovery Audit Contractor
ID	Identifier
NPI	National Provider Identifier
RC	Review Contractor
RRL	Review Results Letter
SMRC	Supplemental Medical Review Contractor
TBD	To Be Determined
URL	Universal Resource Locator
UI	User Interface
SSL	Secure Socket Layer
XDR	Cross-Enterprise Document Reliable Interchange
XML	Extensible Markup Language