

Process Design Document / Solution Design Document

Process Name: Pharmacy Rx Refill Error Pool Messages

Purpose of Document

This document serves as the technology policies and procedure for Intelligent Automation Hub at Geisinger

TABLE OF CONTENTS

1. Document Control	4
2. Document Details.....	5
2.1 Purpose Of This Document	5
3. Current State Process Description	5
3.1 Process Summary	6
3.2 Data Flow & Applications	6
3.2.1 Input.....	6
3.2.2 Output.....	6
3.2.3 Applications	6
3.3 Business Rules.....	7
3.4 Current State Metrics	7
3.5 Current State Process Flow	8
4. Future State Process Description.....	8
4.1 Future State Process Flow.....	8
4.2 In Scope For Rpa.....	10
4.3 Out Of Scope For RPA.....	10
4.4 Future State Detailed Steps	10
4.5 Exceptions In The Process Flow	16
4.6 System Errors	16
4.7 Process Continuity.....	17
5. Technical Details	19
6. Reporting.....	19
7. Environment Details.....	20

8. Assumptions.....	22
9. Additional sources of process documentation.....	22
10. Appendix.....	23
10.1 Glossary.....	23

1. Document Control

Applies to:	All IAH RPA Operating Model
Classification:	Highly Confidential
Owner:	Intelligent Automation Hub Team

DOCUMENT HISTORY

Version	Date	Author	Approver	Reasons for Change
1.0	11/22/2022			Initial Draft
1.1	11/26/2022			Workflow update
1.2	12/6/2022			Workflow update
1.3	12/7/2022			Workflow update
1.4	3/14/2023			Output file update
1.5	5/11/2023			Med match removed
1.6	6/13/2023			Pool Names updated
1.7	6/26/23			Epic SU upgrade
1.8	9/19/23			EPIC SU October 2023

REVIEW/APPROVAL

Role	Name	Date
SME		

Process Owner		
Business Architect		
Developer		
IAH Director		

STAKEHOLDERS

Role	Name	Email
Process Owner		
SME		
Business Architect		
IAH Director		
Developer		

2. Document Details

2.1 PURPOSE OF THIS DOCUMENT

The Process Definition Document outlines the business process chosen for automation and the technology being utilized.

The document describes the sequence of actions performed as part of the business process, the conditions and rules of the process prior to automation and how they are envisioned to work after automating it, partly or entirely. This specifications document serves as a base for developers, providing them with the details required for applying automation to the selected business process.

3. Current State Process Description

3.1 PROCESS SUMMARY

In the current state, the tele pharmacists assign themselves to 2 different refill pools, go into the Rx error folder to match these request to the correct patients, providers, or medications. The automation is going to mimic the steps of the tele-pharmacists in addressing these inbasket message types.

3.2 DATA FLOW & APPLICATIONS

3.2.1 INPUT

Input	Format	Location	Is it natively digital?	Is it structured?
Epic Inbasket Rx-Error messages	Digital/Epic Inbasket	Epic Inbasket	Yes	Yes

3.2.2 OUTPUT

Output	Format	Location	Frequency	Comment
Output file uploaded in SP	XLSX uploaded in SP	Business SP	After the last daily run for the total daily population	

3.2.3 APPLICATIONS

Application	Version	Interface	Req Key / Operation / URL	Comment
Epic		Citrix Application	Access to be requested	
SP		Web Application	Access to Be requested Link: https://geisinger.sharepoint.com/sites/Gen/Telepharmacy/Shared%20Documents/Forms/AllItems.aspx?id=%2Fsites%2FGen%2FTelepharmacy%2FShared%20Documents%2FBot%2FE%2DRefill%20Errors%2FOutput%20Files&viewid=28f0ad1b%2D73a	

			c%2D4bc1%2Dbe58%2Daf4434ce8358	
Outlook		Desktop Application	Bot user account	
Excel		Desktop Application	No access request needed.	

3.3 BUSINESS RULES

Rule	Detail
Automation frequency	Daily (Every 2-3 hours) (Monday to Sunday)
Bot start time	4am-7am, 7am-9am, 9am-11am, 11am-1pm, 1pm-245pm (4am run will have the biggest batch) No runs after 245pm.
Excluding weekends and holidays	No
SLAs	Stop before the next scheduled run or complete the messages

3.4 CURRENT STATE METRICS

Avg. Daily Transactions	# Batches Daily	Avg. Volume / Batch	Weekly Avg. Volume	Frequency
300 daily transactions total	5 different runs daily	4am-7am run will have the highest volumes 4am-7am, 7am-9am, 9am-11am, 11am-1pm, 1pm-230pm	300 daily x 7 days a week = 2100 messages	Daily at 4am-7am, 7am-9am, 9am-11am, 11am-1pm, 1pm-230pm

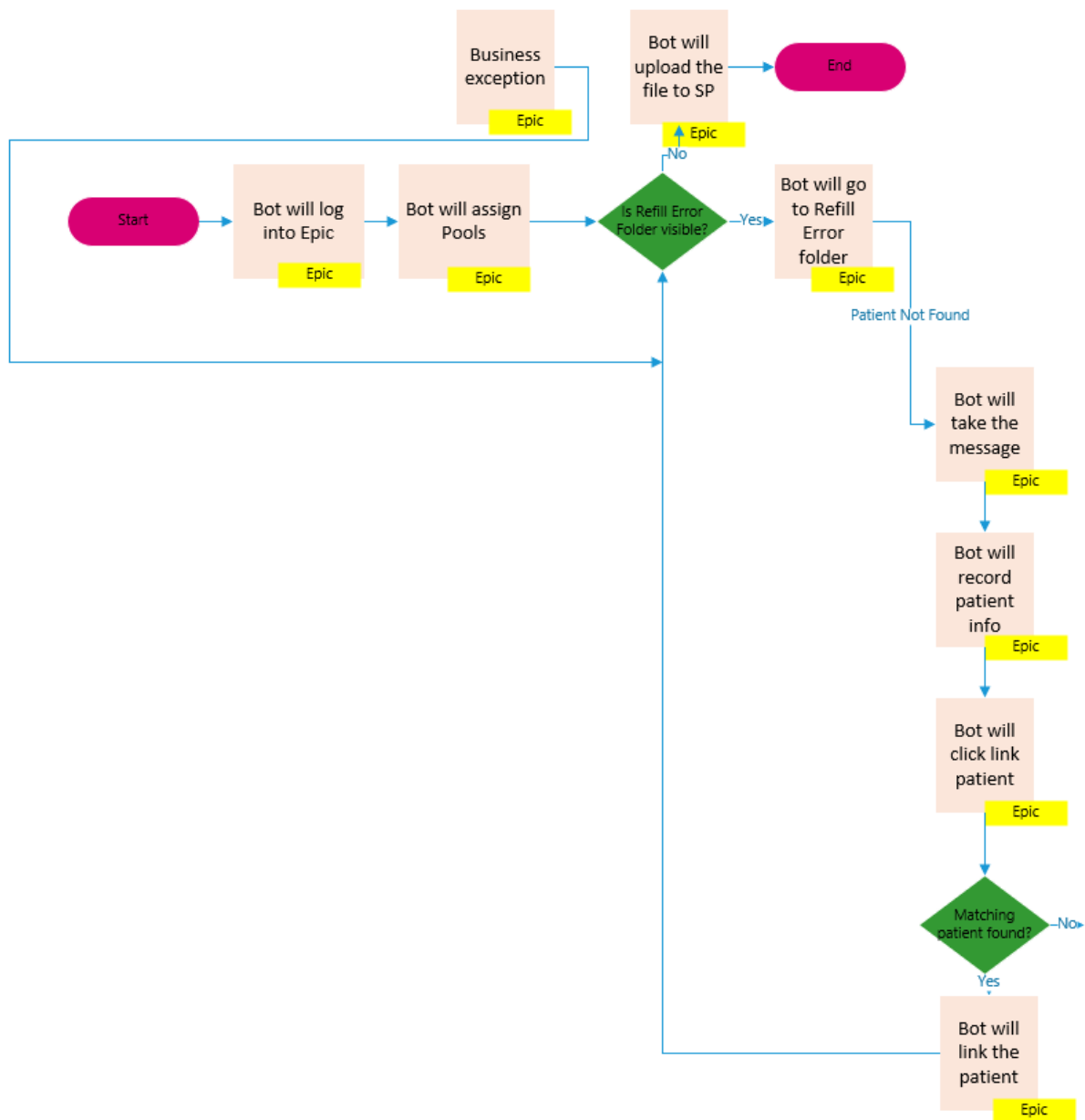
3.5 CURRENT STATE PROCESS FLOW

High Level Process Flow Diagram (Current state):

4. Future State Process Description

4.1 FUTURE STATE PROCESS FLOW

Bot Automation Process & Workflow Diagram (Future State):



High-Level Process Step

1. Bot will log into Epic
2. Bot will assign Pools
3. Is the refill error folder visible?
 - a. If no, send the output file
 - b. If yes, Bot will go to the refill error folder

- i. What is the error message type?
 - 1. Patient Not found
 - a. Bot will take the message
 - b. Bot will record patient info
 - c. Matching patient found?
 - i. If yes, Bot will link the med. Go back to refill error folder
 - ii. If not, business exception, go back to refill error folder

4.2 IN SCOPE FOR RPA

100% of current state process is in scope for RPA.

4.3 OUT OF SCOPE FOR RPA

The actions out of scope for RPA should be listed in the table below together with the reasoning.

Activity/Action	Reason for out of scope	Future State solution	Measures to be taken for future automation
N/A	N/A	N/A	N/A

4.4 FUTURE STATE DETAILED STEPS

Step	Short description of key process steps	Screenshot for reference
1.	Bot will click on User ID and type the user ID	

2.	Bot will click on 'Password' and type the password	
3.	Bot will click on Log in	
4.	Bot will click in the department field	
5.	Bot will type 104500 and press on the magnifying glass	
6.	The Bot will click on Continue	
7.	The Bot will click on Continue	
8.	The Bot will click on Epic at the top left-hand side of the screen	
9.	Bot will type 'in basket'	
10.	Bot will click on In Basket Class	
11.	Bot will click inside the Add Pool field.	
12.	Bot will type 35542 press enter	

13.	Bot will click ADD	
14.	Bot will click inside the Add Pool field again	
15.	Bot will type 70487 and press Enter	
16.	Bot will click Add	
17.	Bot will click Save	
18.	Bot will click Accept	
19.	Bot will click on the inbasket icon	
20.	Bot will click on Refresh	
21.	Bot will click on e-Refill Errors folder (if the folder is not here - there is no messages to process – the Bot will finish the current run and wait for the next run)	

22.	Bot will wait until epic sorts the messages	
23.	In order to process the Patient not found error types messages, Bot will first click on the question mark to take the message to take the baton	
24.	Bot will record the Patient Name, DOB, Address and Phone Number(s) from the message preview window of the message Bot will record the Patient Name, DOB, Address and phone Number(s) for the output file under requested patient information for patient match errors	
25.	Bot will click on Link Patient If this alert comes up, Bot will click yes	

26.	Bot will type the last name, first name in the Name/MRN field, and Birth date in Birth date field and click find patient	
27.	If no matching patient found, Bot will Cancel	
28.	Bot will click Cancel	
29.	If patient not found, Bot will put the message back by clicking on the baton and go to the next message	
30.	If matching patient(s) found, Bot will match the First and Last name and DOB (as 100% match). Bot will also confirm either the address OR one of the phone number(s) are also matching.	
31.	If matching patient(s) found, But Bot could not match the first and last	

	name and DOB, Bot will click CANCEL	
32.	Bot will click Cancel, then Cancel again	
33.	If patient did not match, Bot will put the message back by clicking on the baton and go to the next message	
34.	If the matching patient found, Bot will click Accept Bot will record the Patient Name, DOB, Address and phone Number(s) for the output file under matched patient information for patient match errors	
35.	Bot will click Link Patient	
36.	Bot will land back in the inbasket	
37.	After all messages addressed, Bot will click Log out	
38.	Bot will click X to exit Epic	

39.	Bot will create the output file in Excel Named Telepharmacy Rx Refill Error Messages MM/DD/YYYY	One tab with column: Success, Business exception (reason), system exception Columns: Initial routed date and time, Initial pool, MRN, DOB, error type (patient not found, medication not found), forwarded pool (NA, or pool number),
40.	All daily files will be combined into one after each run for that day	

41. Bot will upload the file to the SP Link and confirm the file is uploaded:

<https://geisinger.sharepoint.com/sites/Gen/Telepharmacy/Shared%20Documents/Forms/AllItems.aspx?id=%2Fsites%2FGen%2FTelepharmacy%2FShared%20Documents%2FBot%2FE%2DRefill%20Errors%2FOutput%20Files&viewid=28f0ad1b%2D73ac%2D4bc1%2Dbe58%2Daf4434ce8358>

4.5 EXCEPTIONS IN THE PROCESS FLOW

Exception	Actions	Comment
If the medication does not have a strength in the inbasket window	Bot will put the message back and mark it as business exception	
If the medication is not in the current or historical med list under Meds tab,	Bot will mark this message as business exception and move on to the next message.	

4.6 SYSTEM ERRORS

Error	Action	Comment
Application crash	Recover and retry 3 times	Epic and SP
Epic Downtime	Pause bot if during run time	
Epic Upgrade	Review with business and determine what/if any action is necessary	

4.7 PROCESS CONTINUITY

Prevention: Establishing and defining what redundancies and protocols are in place to prevent failures in the process and maintain business continuity Detection: Defining what protocols are in place for monitoring the process to detect bugs and stop incorrect actions at all points post go-live and escalated monitoring during massive systems changes Recovery Assessing the level of risk, define strategic stakeholders to be alerted in need of a recovery and outlining the recovery plan to get back to operational state.			
Scenario	Prevention	Detection	Recovery
Expected number of input files not provided or missing.	Business reviews and confirms number of anticipated files are loaded/prepared by agreed upon date.	Bot scans/inspects for anticipated files/number of files.	• Bot sends notification email to those who are on the distribution list and IAH Prod support team. • Business to resolve the issue and notify IAH regarding next steps. • IAH team to reschedule bot run based on bot's availability.

Input file format change or input file is blank (no data).	Business to notify IAH regarding upcoming changes. IAH and Business work together to prepare and follow change management process.	Bot finds out the unexpected file format and fails to complete the process.	• Bot sends notification email to those who are on the distribution list and IAH Prod support team. • Business and IAH work together prepare and follows change management process.
Bot not completing as outlined in PDD.	N/A: What was not known was not preventable.	Hypercare Phase: Daily auditing is performed and process logs are monitored.	• IAH team adjusts bot design to improve business exceptions.
Higher than expected system exceptions.	N/A: What was not known was not preventable.	Insight Dashboards created during UAT for long term monitoring of volume and exception changes (increases or decreases).	• Alert/pulses identified and notifications sent to IAH Comm Support. • Business and IAH work together if additional phase is needed. • ServiceNOW incident reported and escalated as needed.
Output file errors (timing, format, info, reporting).	N/A: What was not known was not preventable.	Hypercare Phase: Daily auditing is performed and process logs are monitored. Insight Dashboards created during UAT for long term monitoring of volume and exception changes (increases or decreases).	• Business and IAH team adjusts bot design to identify output file errors. • Business and IAH work together if additional phase is needed.
Automated QA Bot.	Bot produces email/confirmation/notification of summary indicating input matches output file/data/action results.	Bot indicates in email either success or failure of input=output comparison.	• IAH Support and/or business reviews and determines next steps.

Unknown reasons If the bot fails, how will it continue and resolve issue?	N/A: What was not known was not preventable.	Bot is unable to complete the automated process.	• Bot sends notification email to those who are on the distribution list and IAH Prod support team. • The Bot Controller will then be responsible to triage the bot disruption, fix the issue(s), and either schedule ad hoc processing or resume the bot processing. • Response time confirmed by business – the goal is to complete the work by 10th of the month, but ok if completed by 15th of the month.
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5. Technical Details

Item	Description	Comment
Robot Type	Unattended	
Orchestrator used?	Yes	On-Premise Version
UiPath version used	2020.10.4	

6. Reporting

Report Type	Update Frequency	Details	Distribution List
Process Report SP upload confirmation	Daily at the end of the last run	IAH Telepharm – RX refill error messages SP File uploaded MM/DD/YYYY One tab with column: Success, Business exception (reason), system exception Columns: Initial routed date and time, Initial pool, MRN, DOB, error type (patient not found, medication not found), forwarded pool (NA, or pool number) Requested info: the Patient Name, DOB, Address and phone Number(s) for the output file	SP Upload: LINK
Error Logs	At Time of Error	Report of process errors Subject: IAH Telepharm – RX refill error messages failed MM/DD/YYYY HH:MM Run Body: Bot failed due to system error. Bot will run the same population with next run.	

7. Environment Details

Application	Development Stage	Environment	Access Type	Access Key/Credential
Epic	Development	<Epic_Dev>	Username and password And Log in dept	Username: <USER ID> Password: <PASSWORD> Login Department: <DEPARTMENT>
	Test	<Epic_Test>	Username and password And Log in dept	Username: <USER ID> Password: <PASSWORD> Login Department: <DEPARTMENT>
	Prod	<Epic_Prod>	Username and password And Log in dept	Username: <USER ID> Password: <PASSWORD> Login Department: <DEPARTMENT>
Outlook	Development /Test/UAT/Prod	<Environment Name>	Email account and password	Email: Password: <password1>
SP	Prod	Production		https://geisinger.sharepoint.com/sites/Gen/Telepharmacy/Shared%20Documents/Forms/AllItems.aspx?id=%2Fsites%2FGen%2FTelepharmacy%2FShared%20Documents%2FBot%2FE%2DRefill%20Errors%2FOutput%20Fil

				es&viewid=28f0ad1b%2D73ac%2D4bc1%2Dbe58%2Daf4434ce8358
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8. Assumptions

Assumption	Impact
The entire process is automated end to end with no manual intervention.	
The distribution list, email addresses, and/or shared mailbox listed in the PDD for the purpose of process notification through email are to be maintained solely by the line of business.	

9. ADDITIONAL SOURCES OF PROCESS DOCUMENTATION

Type	Name	Link	Comments
Assessment			IAH Teams Folder
Step Recording (video)			IAH Teams Folder
Task Capture			IAH Teams Folder
UAT Recording (video)			IAH Teams Folder
Executive Summary			IAH Teams Folder

10.1 GLOSSARY

Acronym/Term	Meaning
PDD	Process Design Document – document that contains information about the process in scope for automation and about the agreed technical solution
RPA	Robotic Process Automation
MRN	Medical Record Number
IAH	Intelligent Automation Hub