Advanced RPA Design & Development V3.0

UiPath

Vendor Onboarding Process

Process Definition Document

Revision History

Rev. #	Date	Section/Page#	Revision Summary	Author
1	29/7/2021	Full Document	Document Created	Training

Contents

1. Introduction

1.1 Purpose

The Process Definition Document outlines the business process chosen for automation. The document describes the sequence of actions performed as part of the business process, the conditions, and rules of the process prior to automation (AS IS) as well as the new sequence of actions that the process will follow as a result of preparation for automation (TO BE).

The PDD is a communication document between:

- The RPA Business Analyst and the SME/Process Owner. The goal is to ensure that the RPA Business Analyst has the correct understanding of the process and has represented it accurately.
- The RPA Business Analyst and the Development team (represented by the Solution Architect and RPA Development Lead). The goal is to ensure that the process is documented appropriately and to a sufficient level of detail so that the Solution Architect can then create the solution based on the PDD content.

1.2 Objectives

The business objectives and benefits expected by the Business Process Owner after automation of the selected business process are:

- Reduce processing time per item by 80%.
- Better Monitoring of the overall activity by using the logs provided by the robots.

1.3 Key Contacts

Add here any stakeholders that need to be informed or to approve changes to the process:

Role	Name	Contact Details	Notes
RPA Developer	Joe Bratt	Joe.bratt@mail.com 123-234-2222	-
RPA Senior Developer	Ron Cooper	Ron.Cooper@mail.com 123-234-5555	-

1.4 Minimum Pre-requisites for the Automation

- Filled in Process Definition Document.
- Test Data to support development.
- User access and user accounts creations (licenses, permissions, restrictions to create accounts for robots).
- Credentials (user ID and password) required to logon to machines and applications.

2. AS IS Process Description

The manual process for vendor onboarding process of ACME Systems Inc. is:
1. The executive reads the mails received from the vendor and download the attachments.
2. Check that all the vendor details are present. Also, check that the Tax ID has a valid format.

- If not, send email to the vendor that a particular detail is not present, or the Tax ID has invalid format.
3. Log in to the ERP application and check that the vendor details do not exist in the database of the application using the Tax ID.
    - If the Tax ID matches with the existing entries, send email to the vendor that the vendor already exists in the system.
4. Log in to the CRM application and check that the vendor details do not exist in the client database using the Tax ID.
    - If the Tax ID matches with the existing Client entries, send email to the vendor that the vendor already exists in the system.
5. Enter the details of the vendor (Vendor Tax ID, Name, Address, City, and Country) in the ERP application to add the vendor.
6. When all the transactions have been processed, create an MIS report.
7. After completing the process, send the MIS report to the support team.

2.1 Process Overview

Section contains general information about the process before automation.

| Item	Description/Answer
Process Full Name	Vendor Onboarding
Process Area	Vendor Management
Department	Accounts
Short Description (operation, activity, outcome)	Extract details from the vendor onboarding form and insert vendor details in ERP Application. The MIS is prepared and shared with the business team.
Role(s) required in applications to perform the process	ACME System 1 and ACME System 3 user
Process schedule and frequency	Daily
Number of times the process is ran by selected frequency	20 times
Process execution time	6:00 AM EST and 4:00 PM EST
Process Restrictions	The applications can be used only between 7 AM-8PM during workdays and not allowed to be used during weekends.
Peak Period (s)	Beginning of the month, usually from 28th to 30th day of each month
Peak Volume Approximate increase	*10 daily*
Number of persons performing the process	*1*
Expected Volume increase during next periods	*NA*
Percentage Un-handled exceptions	*NA*
Input data description	Mail with attachment vendor information (pdf & word)
Output Data description	Vendor details uploaded in ACME with MIS

2.2 Applications Used

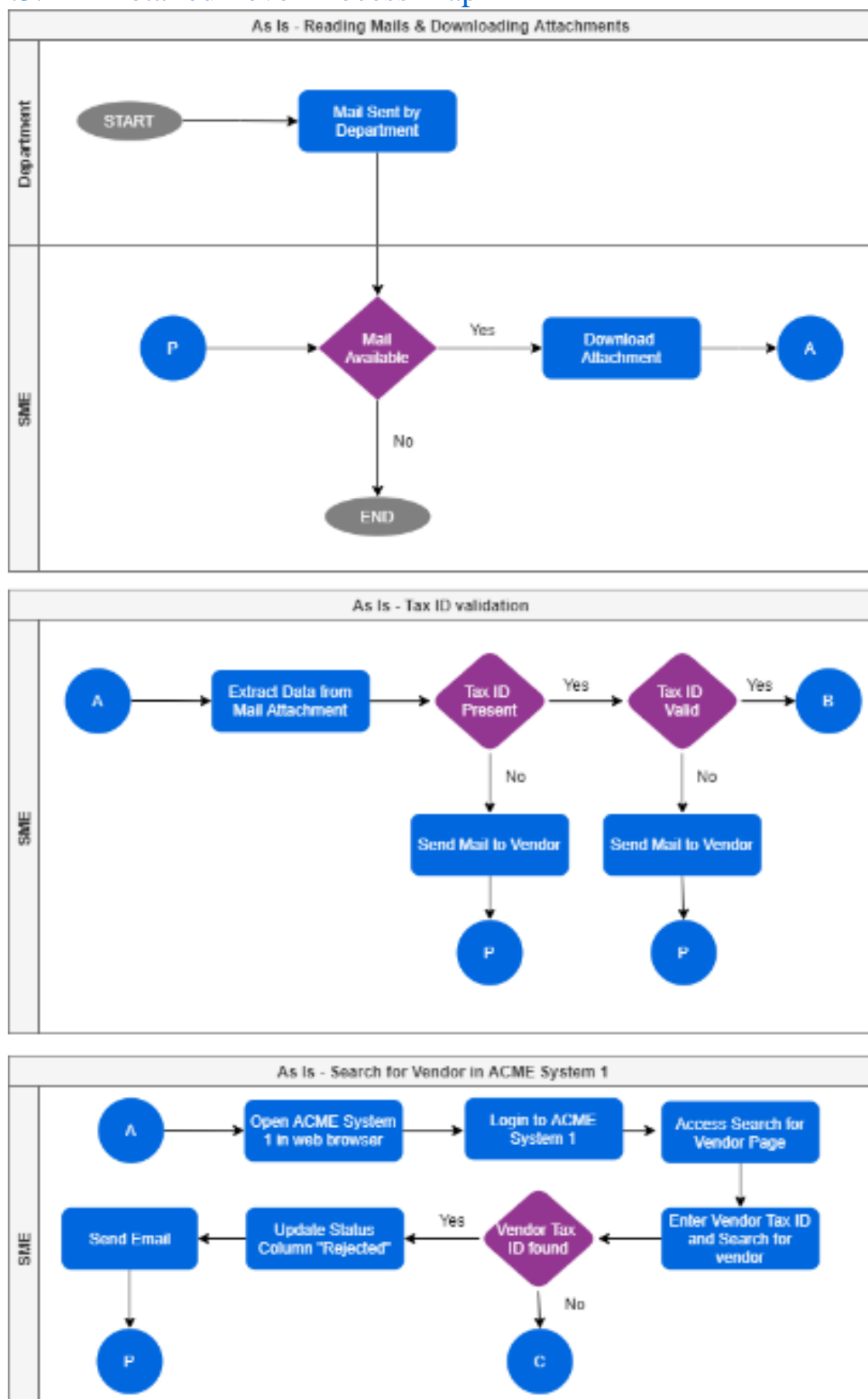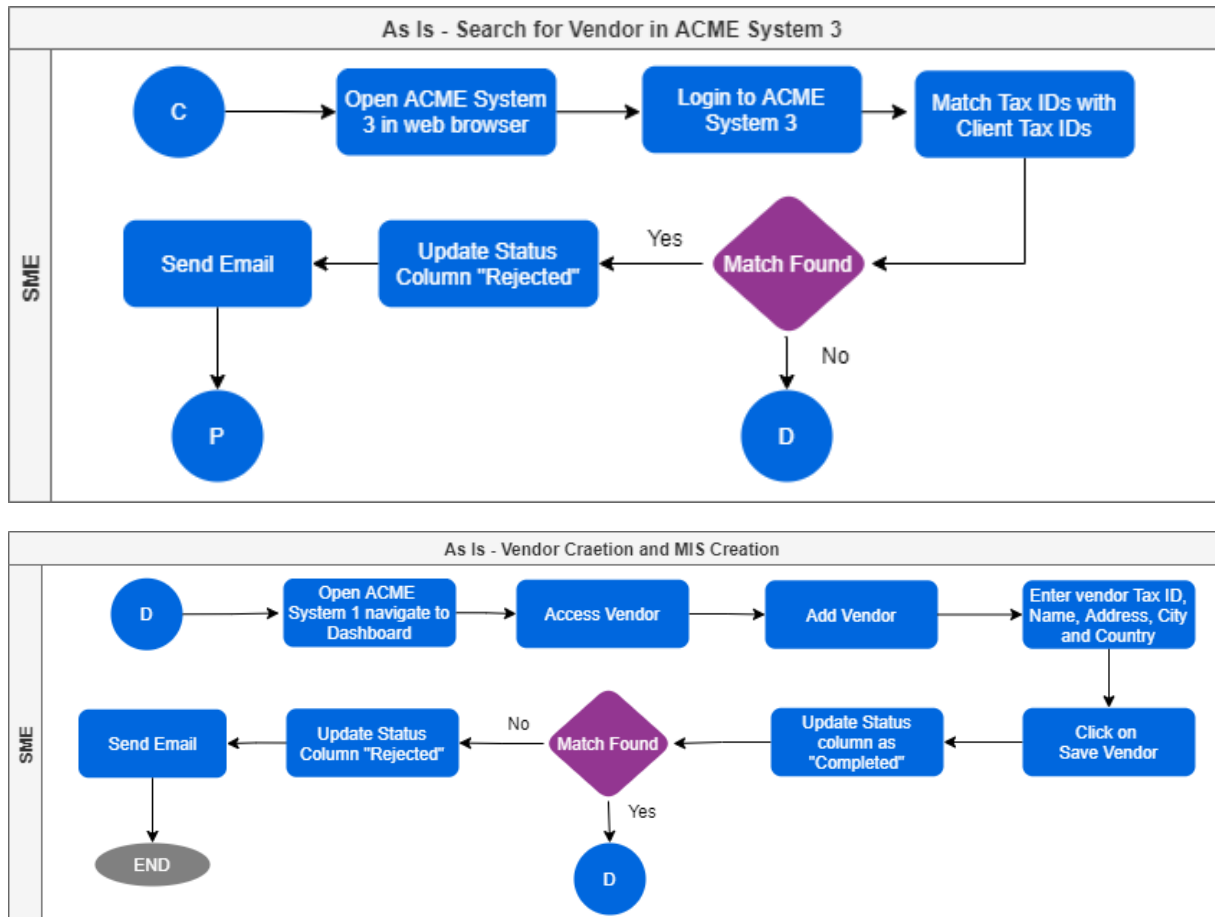| Application Name	Version	Application Language	Thin/Thick Client	Environment/ Access method	Comments
ACME System 1	2020.1	EN	Thin	Web browser	N/A
ACME System 3	2020.1	EN	Thick	Desktop	N/A
MS Outlook	2019	EN	Thick	Desktop	N/A
MS Excel	2019	EN	Thick	Desktop	N/A

2.3 AS IS Process Map
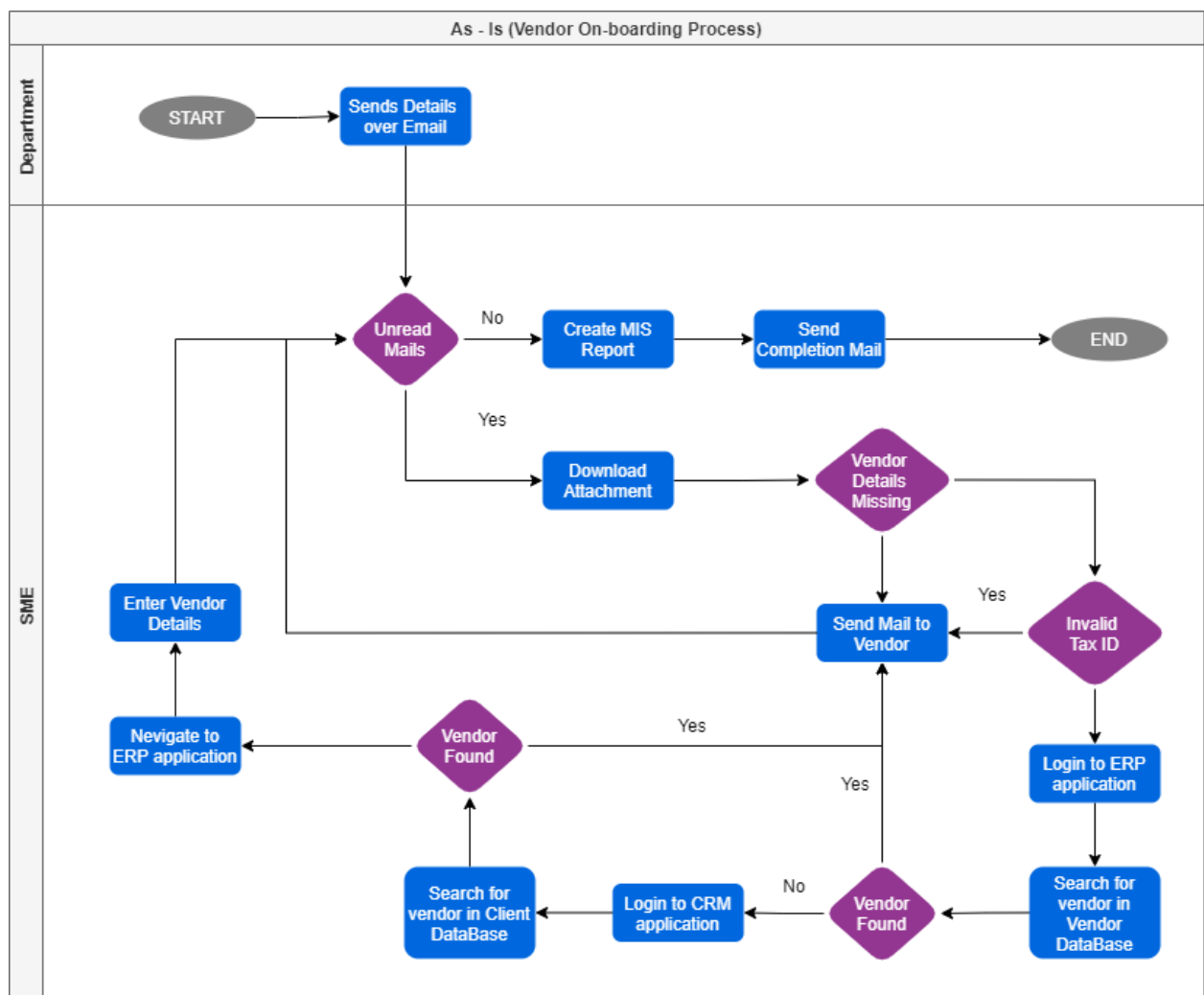
2.3.1 High Level Process Map
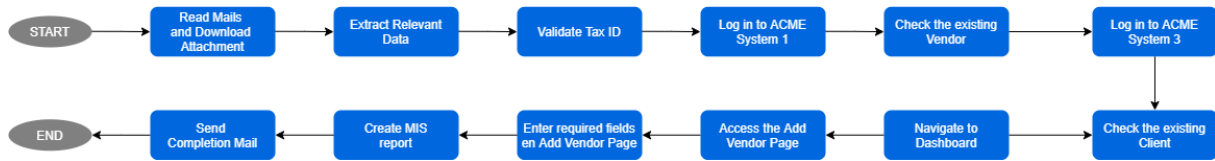
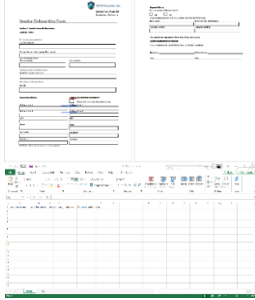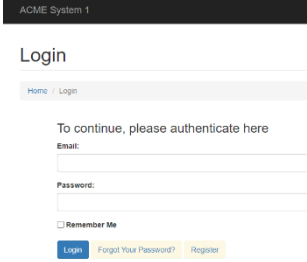| Step	Short Description
1	Read Mails
2	For Each Mail
3	Download Attachment
4	Extract Data from mail attachment
5	Search for Tax ID in the mail attachment
6	Open ACME System 1 Web Application
7	Log in to System 1. Required input data: Email and Password
8	Access the Dashboard- the central location, where the user can pick a specific menu item
9	Access the 'Search for Vendor' page in the 'Vendors' section.
10	Enter Tax ID in Search for Vendor page and Click Search button.
11	Log in to System 3. Required input data: Email and Password
12	Search for the Tax ID
13	Open ACME System 1 and Navigate to Dashboard
14	Access 'Add Vendor' Page in the Vendors section
15	Enter Vendor Tax ID, Vendor Name, Address, City and Country extracted from the mail attachment.
16	Click on Save Vendor button and Update the MIS DataTable's Status column as 'Completed'
17	If there are no mails to be processed.
18	Create MIS Report.
19	Send mail to the concerned department.

2.3.2 Detailed Level Process Map

As Is - Reading Mails & Downloading Attachments

Department:
START → Mail Sent by Department

SME:
P → Mail Available
- Yes → Download Attachment → A
- No → END

As Is - Tax ID validation

SME:
A → Extract Data from Mail Attachment → Tax ID Present
- Yes → Tax ID Valid
  - Yes → B
  - No → Send Mail to Vendor → P
- No → Send Mail to Vendor → P

As Is - Search for Vendor in ACME System 1

SME:
A → Open ACME System 1 in web browser → Login to ACME System 1 → Access Search for Vendor Page → Enter Vendor Tax ID and Search for vendor → Vendor Tax ID found
- Yes → Update Status Column "Rejected" → Send Email → P
- No → C

As Is - Search for Vendor in ACME System 3

As Is - Vendor Craetion and MIS Creation

2.4 Detailed AS IS Process Actions

#Action	Input	Description	Details	Exception Handling	Possible Actions
1	Unread Mails	Read Mails		1. Mailbox not configured 2. Invalid Mail Subject Format	Reading Unread Mails with a pre-defined mail subject.
2		Download Attachment		Attachment not Found	1. Save attachment in the Input folder. 2. If attachment not found, Notify Vendor 3. If more than one attachment found, Notify Vendor

3	Vendor Onboarding Form (PDF(Native or Scanned)/Excel)	Extract Data from mail attachment		Invalid File Type	1. Store the vendor details in a Data Table. 2. Update MIS Report. 3. If Invalid File Type found, Notify Vendor
4		Check for the vendor details and validate Tax ID	**Tax ID:** RO356452 Vendor Tax ID RO356452	1. Vendor Details missing 2. Tax ID not valid	1. Vendor Details should not be empty, and Tax ID should have a valid format. 2. Update MIS Report 3. If vendor details missing, Notify vendor. 4. If Tax ID is not valid, Notify Vendor.
5		Open ACME System 1 Web Application.		Webpage not responding	Restart the browser.
6		Log in to System 1. Required input data: Email and Password		Wrong Credentials	1. Login to ACME System 1 using the Credential Asset (ACME_Credential) 2. If Invalid Credentials found, Notify Support Team
7		Access the Dashboard- the central location, where the user can pick a specific menu item.			Click on the 'Home' button
8		Access the 'Search for Vendor' page in the 'Vendors' section.			From the Vendors tab, select Search for Vendor option from the drop-down menu.
9		Enter Tax ID in Search for Vendor page and Click Search button.		Tax ID found.	1. Enter the Tax ID in the Vendor Tax ID section and select Search button 2. Update MIS Report 3. If vendor is present in database, Notify Vendor
10		Log in to System 3. Required input data: Email and Password		Application Crashes	Login to ACME System 3

11		Search for the Tax ID in Client Data.		Tax ID found.	1. Send Mail to the business with body message as "Vendor is present in our system." 2. Update the MIS Report 3. If vendor is present in database, Notify Vendor
12		Open ACME System 1 and Navigate to Dashboard			Navigate to Vendors>Add Vendor
13		Access 'Add Vendor' Page in the Vendors section			Click on Add Vendor Page
14		Enter Vendor Tax ID, Vendor Name, Address, City and Country extracted from the mail attachment.			
15		Click on Save Vendor button and Update the MIS DataTable's Status column as 'Completed'			Update MIS Report
16		Create MIS Report.	MIS Report		
17		Send mail to the concerned department.			Send mail to business team with MIS Report as Mail Attachment

2.5 Input Data Description

The following table contain details regarding the inputs that every action of the process takes.

#Action	Sample	Input Type	Location	Are inputs Natively Digital*?	Are the inputs Structured*?
2		PDF	Input Folder	Yes	Yes
2		PDF	Input Folder	No	Yes
2		Excel	Input Folder	Yes	Yes

* Native Digital: This is data that was originally created digitally e.g. excel, database or application reports etc. The non-native digital inputs are usually scanned images.

* Structured Data: has a predictable format and exists in fixed fields (e.g. an excel cell or a field in a form) and is easily detectable via search algorithms.

3. TO BE Process Description
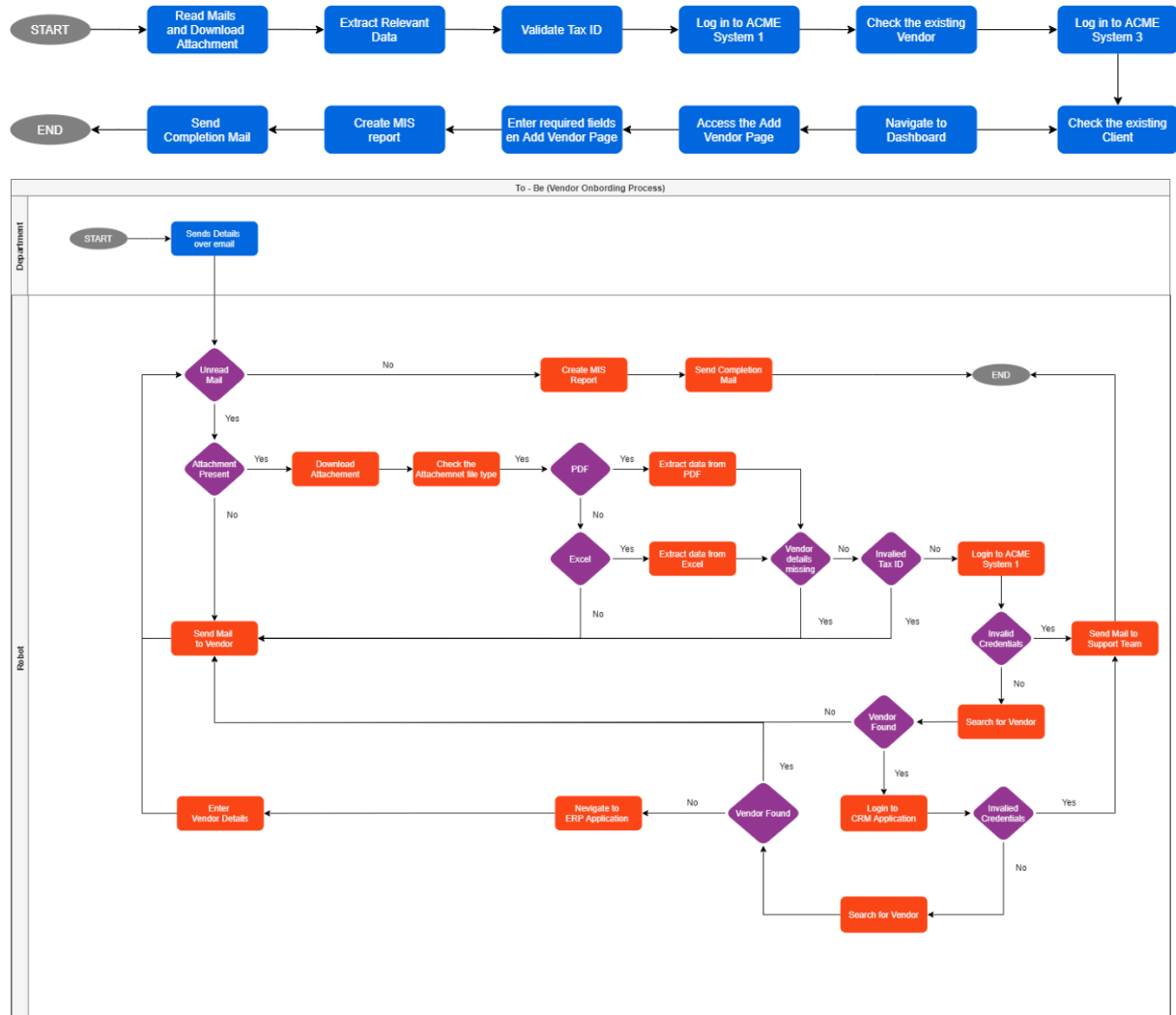
3.1 Detailed TO BE Process Map

A detailed process map of the process as it will look like post-automation is outlined here.

Legend	Description
■ (purple)	Decisions made throughout the process.
■ (orange)	This process action is proposed for automation.
■ (blue)	This process action remains manual (to be performed by a human agent).

To be - Reading Mails & Downloading Attachments

To Be - Attachment File Type

Robot:
A → Check for Attachment File Type → File Type PDF
- Yes → Extract Data from PDF (Scanned or Digital) → B
- No → File type Excel
  - Yes → Extract Data from the excel file → B
  - No → (to Support Team)

Support Team:
Send Mail → P

To Be - Validating Tax ID, Login to ACME System 1 and Search for Tax ID

Robot:
B → Page Loads Sucessfully
- No → Send Mail → P
- Yes → Page Loads Sucessfully
  - No → Open ACME System 1 → Page Loads Sucessfully
    - Yes → Login to ACME System 1 → Login Sucessfully
      - Yes → Access Vendor Stock Page → Enter Tax ID and Search for Vendor → Result Found
        - No → C
        - Yes → Update the Staus coloum "Rejected"
      - No → (to Support Team)
    - No → (to Support Team)
  - Yes → (loop to R)

Support Team:
Send Mail → Rectify Error and Retry → R
Send Mail → Rectify Error and Retry → R
Send Mail → P

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To Be - Search for Vendor in ACME System 3

To Be - Placing Order and MIS Creation

3.2 Parallel Initiatives

Initiative Name	Process Action(s) where it is identified	Impact on current Automation Request	Expected Completion Date	Contact Person
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA

3.3 In Scope for RPA

The activities and exceptions in this process that are in the scope for RPA, are listed below:

- Full Scope for RPA - the process is to be 100% automated.

3.4 Out of Scope for RPA

There are no activities out of scope for RPA.

3.5 Exception Handling

The Business Process Owner and Business Analysts are expected to document below all the business exceptions identified in the automation process. Exceptions are of 2 types, and both need to be addressed:

Known exceptions = previously encountered. A scenario is defined with clear actions and workarounds for each case.

Unknown = New situation that was not encountered before. It cannot be predicted and in case it happens it needs to be flagged and communicated to an authorized person for evaluation.

3.5.1   Known Business Exceptions

Details regarding how the robot should handle the exceptions.

Exception Name	Action#	Parameters	Actions to be taken
Tax ID found in ACME System 1	9	VendorTaxID	Send an e-mail to vendor with the text: Vendor is already added in our system." Go to the next transaction
Tax ID found in ACME System 3	11	VendorTaxID	Send an e-mail to vendor with the text: Vendor is already added in our system." Go to the next transaction
Input File Type	3	InputFileType	Send an e-mail to vendor with the text: Invalid FileType received." Go to the next transaction
Email Subject	1	MailSubject format is not supported	Send an e-mail to vendor with the text: Incorrect Format of the Subject." Go to the next transaction
Attachment not present	2	Input Folder is Empty	Send an e-mail to vendor with the text: Vendor onboarding form is missing in the mail." Go to the next transaction
Relevant Fields	4	VendorName/ VendorAddress/ VendorCity/ VendorCountry	Send an e-mail to vendor with the text: Data missing for 'x' field." Go to the next transaction
Invalid Credentials	6	Element not found	Send an e-mail to support team with the text: Invalid Credentials." Go to the next transaction

3.6 Applications Errors & Exceptions Handling

A comprehensive list of all errors, warnings or notifications should be consolidated here together with the action to be taken for each by the Robot. There are 2 types of exceptions/errors:

- **Known** = Previously encountered and action plan or workaround available for it (e.g., SAP unresponsive during peak times).

- **Unknown** = These are exceptions and errors that cannot be anticipated but for which the robot needs to have a rule so that the RPA solution is sustainable.

3.6.1 Known Applications Errors and Exceptions

Details regarding how the robot should handle the exceptions.

Error/Exception Name	Action	Parameters	Actions to be taken
e.g., Application (Crash / Non-Responsive)	10	Application Unresponsive.	Recover and retry 3 times
Webpage not loaded	5	Webpage Unresponsive.	Recover and retry 3 times

3.7 Reporting

Report Type	Update frequency	Details	Monitoring Tool to visualize the data
Process logs	Daily	How many times was this process run since the beginning of the month and what was the average run duration	Orchestrator
Transaction logs	Daily	How many transactions were run by this process since the beginning of the month and what was the average transaction duration?	Orchestrator
Error logs	Daily	Average number of errors by type per day	Orchestrator
MIS report	Daily	All transactions processed during the day	Excel file over an email to be sent

4. Other

4.1 Additional sources of process documentation

Additional Process Documentation		
Video Recording of the process (Optional)	N/A	N/A
Business Rules Library (Optional)	N/A	N/A
Other documentation (Optional)	N/A	N/A
Standard Operating Procedure(s) (Optional)	N/A	N/A
High Level Process Map (Optional)	N/A	N/A
Detailed level process map (Optional)	N/A	N/A
Work Instructions (Optional)	N/A	N/A
Input Files (Optional)	N/A	N/A
Output Files (Optional)	N/A	N/A