Process Design Document



**VES Robotics Process Automation**

**Presented by:**



**Tecnics Consulting Inc.**

5177 Richmond Ave, Ste 570  
Houston TX 77056

Sales & Recruiting: 281-822-7900

[www.tecnics.com](http://www.tecnics.com)

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# **Executive Summary**

This proposal Document outlines the business process chosen for automation using UiPath Robotic Process Automation (RPA) technology.

# **Why Tecnics**

Tecnics Consulting Inc. established in 1998, is a technical consulting company committed to enhancing the competence and competitiveness of its clients by helping them succeed through collaboration and the power of information technology.

Tecnics US Consulting headquarters is located in Houston, TX, Tecnics Middle East Consulting headquarters is located in Dubai, UAE, and Tecnics Technical Development Center of Excellence is located in Hyderabad, India.

Using a blend of onshore and offshore resources we have been able to cut IT costs for companies while providing high quality work with excellent customer service. Driven by the credo that solutions are effective only when organizational needs are accurately ascertained and aptly addressed, Tecnics looks upon itself as an integral part of its client's organizations. Tecnics approaches development and maintenance through simplified access to project domains. We provide 24/7/365 support channels to our global customer base.

# **Project Overview**

## *Introduction to VES Project*

VES is a Veteran owned service company, full time Veterans Liaison Team, led by a disabled Veteran of two wars, personally responds to all Veteran feedback requests and phone calls and communicates regularly with Veteran’s Service Organizations on both the state and federal level.

They help the veterans in VA (Veteran Affairs) disability claims process. In order to effectively process the claims, they will be using different type of systems which will store the information of Veterans medical records and other personal information.

# **Introduction**

## *Purpose of the document*

The Process Definition Document outlines the business process chosen for automation using UiPath Robotic Process Automation (RPA) technology.

The document describes the sequence of steps 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 the details required for applying robotic automation to the selected business process.

## *Objectives*

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

* Automate the process of downloading the files (pdfs) from VA Server to VES Server
* Merging the PDFs into single PDF file
* Reduce processing time per item by 80 %
* Better Monitoring of the overall activity by using the logs provided by the robots

## *Process key contacts*

The specifications document includes concise and complete requirements of the business process and it is built based on the inputs provided by the process Subject Matter Expert (SME)/ Process Owner.

The Process Owner is expected to review it and provide signoff for accuracy and completion of the steps, context, impact and complete set of process exceptions.

The names have to be included in the table below.

|  |  |  |  |
| --- | --- | --- | --- |
| *Role* | *Name* | *Contact details*  *(email, phone number)* | *Notes* |
| ***Process SME*** | Stalin |  | Point of contact for questions related to process details & exceptions |
| ***Process Reviewer*** | Michael Vu |  | Point of contact for questions related to process details & exceptions |
| ***Process Owner/ Approver for production*** | Don Mai |  | Escalations, Delays, etc |

## *Minimum Pre-requisites for automation*

1. Orchestrator and UiPath Studio
2. Microsoft SQL server instance
3. Microsoft Windows IIS Services with SSL Certificate
4. Identify and implement appropriate credentials and administrative access for appropriate systems
5. Availability of key project resources for duration of project- ensuring all parties remain engaged and provide requested information in a timely manner
6. Test Data to support development/testing

# **As IS process description**

## *Process Overview*

General information about the process selected for RPA prior to automation.

|  |  |  |
| --- | --- | --- |
| # | Item | Description |
| 1 | **Process full name** | *Claim Processing* |
| 2 | **Process Area** | *Veteran Claim Process* |
| 3 | **Department** | *Healthcare* |
| 4 | **Process short description**  (operation, activity, outcome) | *Automate the process of downloading the PDFs from VA Server to VES Server and merge the PDFs into single PDF file.* |
| 5 | **Role(s) required for performing the process** |  |
| 6 | **Process schedule and frequency** | *Daily, Monday to Friday, 9 am – 6 pm* |
| 7 | **# of items processes /month** | *~48/ day per operator on a business day* |
| 8 | **Average handling time per item** | *20 min* |
| 9 | **Total # of FTEs supporting this activity** | *40* |
| 10 | **Level of exception rate** |  |
| 11 | **Input data** | *File number of the veteran* |
| 12 | **Output data** | *Merged PDF* |
| 13 | **Dependencies**  (upstream, downstream) | *n/a* |

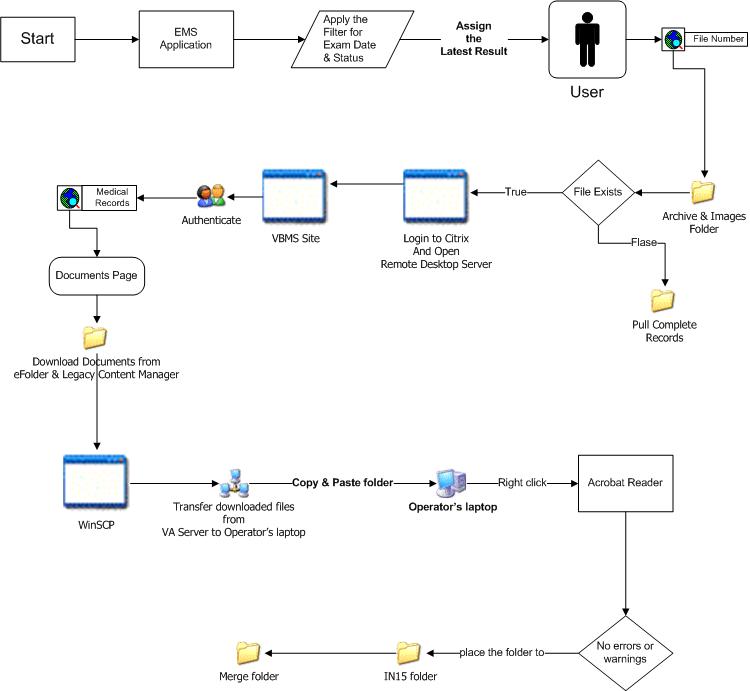
## *Applications used in the process*

The table includes a comprehensive list all the applications that are used as part of the process automated, at various steps in the flow.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | Application name & version | System  Language | Environment/  Access method | Comments  (Include URLs) |
| *1* | *EMS* | *EN* | *Citrix* |  |
| *2* | *VBMS/VA Server* | *EN* | *Citrix* |  |

## *As IS Detailed Process map for claim process*

This chapter depicts the AS IS business process in detail to enable the developer to build the automated process.



## *Detailed AS IS Process Steps*

Each Operator logs into VES system and VA server using smart card and a pin.

## EMS Application

1. From Operator’s laptop, open EMS application
2. Apply the filters for Exam Date and Status (Pending)
3. Open the latest result, and assign it to operator so that no one else will work on the case
4. Search for the File # in Archive Folder and Images Folder on the shared drive. If the file exists, then Operator have to pull patient records from vbms site after the last processing date. If not, pull complete records

## VA Environment

1. Login to Citrix environment
2. Open Remote Desktop Server
3. Open Internet Explorer and go to vbms website
4. Authenticate with the user name, password and pin
5. Search for medical record using File #. Verify that the name and DOB match with the information from EMS application
6. Go to Documents
7. Manually download documents from 2 tabs – eFolder and Legacy Content Manager into a folder
8. Rename the folder with File # and Operators first name initials and last name
9. Open WinSCP and connect to Operator’s laptop
10. Transfer downloaded files from VA Server to Operator’s laptop

## Local environment

1. Copy and paste the folder from WinSCP folder to local folder in Operator’s laptop. Placing the folder in IN15 to Merge.
2. Right click on the folder and click on combine files using Acrobat Reader plugin. If there are no errors or warnings, place the folder in IN15 folder. Every 15 min, a program runs on this folder to merge the pdf files to one pdf file. This merged file is placed in Merge folder
3. Once the file is in Merge folder, copy the file to Archive folder and update the comment field in EMS application with the number of pages in merged PDF file

# 

# **To BE Process Description**

This chapter highlights the expected design of the business process after automation.



## *Detailed TO BE Process Steps*

There are two steps in the process which will be handles by two different bots.

Bot 1: For automating the download process

Bot 2: Reporting





***Download Process Steps:***

* Each Operator logs into VES Citrix environment with their username and password
* Bot will be installed in VES Citrix environment. Operator will start the automation process by double clicking the icon (batch file) on the desktop
* Bot will read entries from the file located at *file location*

*Sample file format:*

* WinSCP

1. *Open WinSCP*
2. *Connect to VA Server WinSCP (Assumption: All the details for connecting to VA server are saved in WinSCP)*

* Bot will retrieve login details (Password, station id) for VA Server from Orchestrator based on the user logged into VES environment. *(Assumption: VES will ensure that the passwords are not expired)*
* Bot will open Citrix environment for VA server
  1. Bot will login to VA Server using the credentials retrieved from Orchestrator (Will this be from Orchestrator or pre-saved in users machine?)
  2. Bot will open Internet Explorer, enter URL for VBMS site *(URL Details)*
  3. Bot will log in to the VBMS site using the credentials (Username, Password, Pin, Station Id) from Orchestrator (Will this be from Orchestrator or pre-saved in users machine?)
  4. Bot will retrieve one unprocessed file number from the Excel and search for the documents in VBMS site. Go to Documents Tab:
     + Download files from eFolder tab
       - Capture total number of files in the tab
       - Retrieve Document Type and Subject from Orchestrator. Based on this, download the files to location *download path (This path will be same for all the operators)*
     + Download files from Legacy Content Manager tab
       - Capture total number of files in the tab
       - Retrieve Document Type and Subject from Orchestrator. Based on this, download the files to location *download path* (This path will be same for all the operators)
  + Note: Only 5 files can be selected at a time. When clicked on download, each of the file will be opened. Bot has to rename the file and save it. Files can be saved with any name. Ex: 1, 2, 3, etc.
  1. WinSCP
     + Open WinSCP
     + Connect to VES Server WinSCP (Assumption: All the details for connecting to VES server are saved in WinSCP)
     + Move files from VA Server *Download path* to VES Server WinSCP *Download path*
* Copy file from WinSCP Download path to local folder
* Use combine files option from context menu of local folder to generate combined PDF in the same folder. Rename the file to File number

1. Errors while combing files:
   * + Signatures: Click on Combine Files
     + Password Protection: Click on combine files. When the password prompt appears, enter the possible passwords (Will be maintained in a file in Orchestrator). If all the provided passwords don’t work, place the folder in Errors folder and proceed with next record from the text file
     + Any other error: Open the PDF, click on lock icon, print the file to image. Optimize the file and replace the file in the folder. Try to combine the files again. If unsuccessful, place the folder in Errors folder and proceed with next record from the text file

* If Combine Files is successful, delete the individual files from Operators machine

Move the merged file to Active Backup drive *path*

* Bot will set status of current file to complete and pick the next unprocessed file number from the text file for further processing

## *Reporting Bot:*





## *Detailed Report Bot Steps*

* The Bot will be scheduled on Orchestrator
* Bot will read the database logs and generate status report and it will send it as an email notification
* Report and Email Notification:

1. After all the files are processed, generate a report and email the report
2. Report Format: *Please confirm*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| File number | Number of pages in eFolder | Number of pages in Legacy Content Manager | Number of pages in merged file | Status | Error message |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

1. Email Format:

*Hello*

* Error message Logs:
  1. Logs will be maintained in SQL DB
  2. Success log: Log will be entered when the bot begins processing and completes the process the successfully
  3. Error Log: If there is an error in any step, a log will be entered
  4. Format: *Please confirm*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| FILE NUMBER | IP Address | ERROR\_IND | LINE NO. | REPORT LINE | MESSAGE DATE TIME |
| 1234 | 192.168.1.100 | S | 1 | Process started for Veteran ID: | 5/28/19 6:40 |
| 1234 | 192.168.1.100 | S | 2 | Process ended successfully for Veteran ID: | 5/28/19 6:45 |
| 2345 | 192.168.1.101 | S | 1 | Process started for Veteran ID: | 5/28/19 6:41 |
| 2345 | 192.168.1.101 | E | 2 | Error in connecting to VA Server; Process ended | 5/28/19 6:42 |

## *In Scope for RPA*

* Install, validate and Configure Studio and Orchestrator for Development, QA and Production
* Development of bot:

1. Read input file to retrieve file numbers
2. Connect to VA Server
3. Download documents(pdfs) from VA Server
4. Upload pdfs to VES server
5. Merge PDF files to one PDF
6. Move the file to Active Backup folder
7. Generate and email daily report with status

* Configure bot on Operators machine

## *Out of Scope for RPA*

* Backup and recovery of systems, data or other configurations
* Changes required in existing backend applications for integration
* Upgrade and degrade of existing application for integration
* SSO with other parallel systems
* Data migration or data dumping for any file formats
* Overwriting existing system workflow
* Disaster Recovery remediation or replication of Active Directory data

## *Business Exceptions Handling*

The Business Process Owner and Business Analysts are expected to document below all the business exceptions identified in the automation process. These can be classified as:

|  |  |
| --- | --- |
| *Known* | *Unknown* |
| Previously encountered. A scenario is defined with clear actions and workarounds for each case. | New situation never encountered before. It can be caused by external factors. Cannot be predicted with precision, however if it occurs, it must be communicated to an authorized person for evaluation. |

## Known Exceptions

The table below reflects all the business process exceptions captured during the process evaluation and documentation. These are known exceptions, met in practice before.

|  |  |  |
| --- | --- | --- |
| BE # | Exception name | Action to be taken |
| 1 | Error in reading file | End the process and notify the operator via email |
| 2 | Error in retrieving Orchestrator assets | End the process and notify the operator via email |
| 3 | Error connecting to Citrix environment | End the process and notify the operator via email |
| 4 | Error in downloading files | End the process and notify the operator via email |
| 5 | Error connecting to WinSCP | End the process and notify the operator via email |
| 6 | Error in merging pdf files | End the process and notify the operator via email |
| 7 | Error generating the report | End the process and notify the operator via email |
| 8 | Error sending an email | End the process and add to the logs |

## Unknown Exceptions

For all the other unanticipated or unknown business (process) exceptions, the robot should:

* Stop the process and capture the error in logs and daily report

## *Reporting*

|  |  |  |  |
| --- | --- | --- | --- |
| # | Report type | Update frequency | Details |
| ***1*** | Transaction logs | Daily | How many transactions were run by the process for the day with status(success/failed) |
| ***2*** |  |  |  |

# **Assumptions**

## *Baseline Assumptions*

* The execution of the project will be by mix of onsite and offsite resources.
* The execution of the project will be delivered as per product out of box features.
* VES will provide system experts and business analysts necessary to gather the data and to develop an effective roadmap.
* VES will provide all necessary technical resources to help provide an understanding of the current environment.
* VES will provide dedicated space and facilities (e.g., desks, phones, development PC / Laptop, Internet access, LAN access, laser printers, analog lines and fax) for the project consultants.
* VES will appoint their own Project Manager who will coordinate and provide customer resources as required for the engagement.
* The UAT (including creation of test data and test scripts) will be carried out by VES and will be based on mutually agreed upon timelines, approved SRS and acceptance criteria.
* VES will give a sign-off based on this on completion of the UAT.
* It is assumed that relevant users will be available for testing. Any additional effort required for UAT support caused by either lack of resource availability or delay in completion of activities, for which customer is responsible, will be considered as additional work.
* Services are estimated to begin on mutual agreed dates.
* The language of engagement and deliverables will be in English.
* Assuming there will be no business validations , if any new business validations needs to implement then have to estimate the hours

# **Document Approval**

This document requires serial approval (sign off) from the roles defined in the table below.

Changes to the requirements must be documented in an updated version (i.e v 2.0) and requires a new signature flow.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Version | Flow | Role | Name | Organization  (Dept.) | Approval Date: |
| **1.0** | **Document prepared by** | ***Technical Solution Architect*** |  |  |  |
| **1.0** | **Document Approved by:** | ***Process Owner*** |  |  |  |
| **1.0** | **Document Approved by:** | ***Operations*** |  |  |  |
| **1.0** | **Document Approved by:** | ***Compliance*** |  |  |  |
| **1.0** | **Document Approved by:** | ***RPA Architect/ Developer*** |  |  |  |